

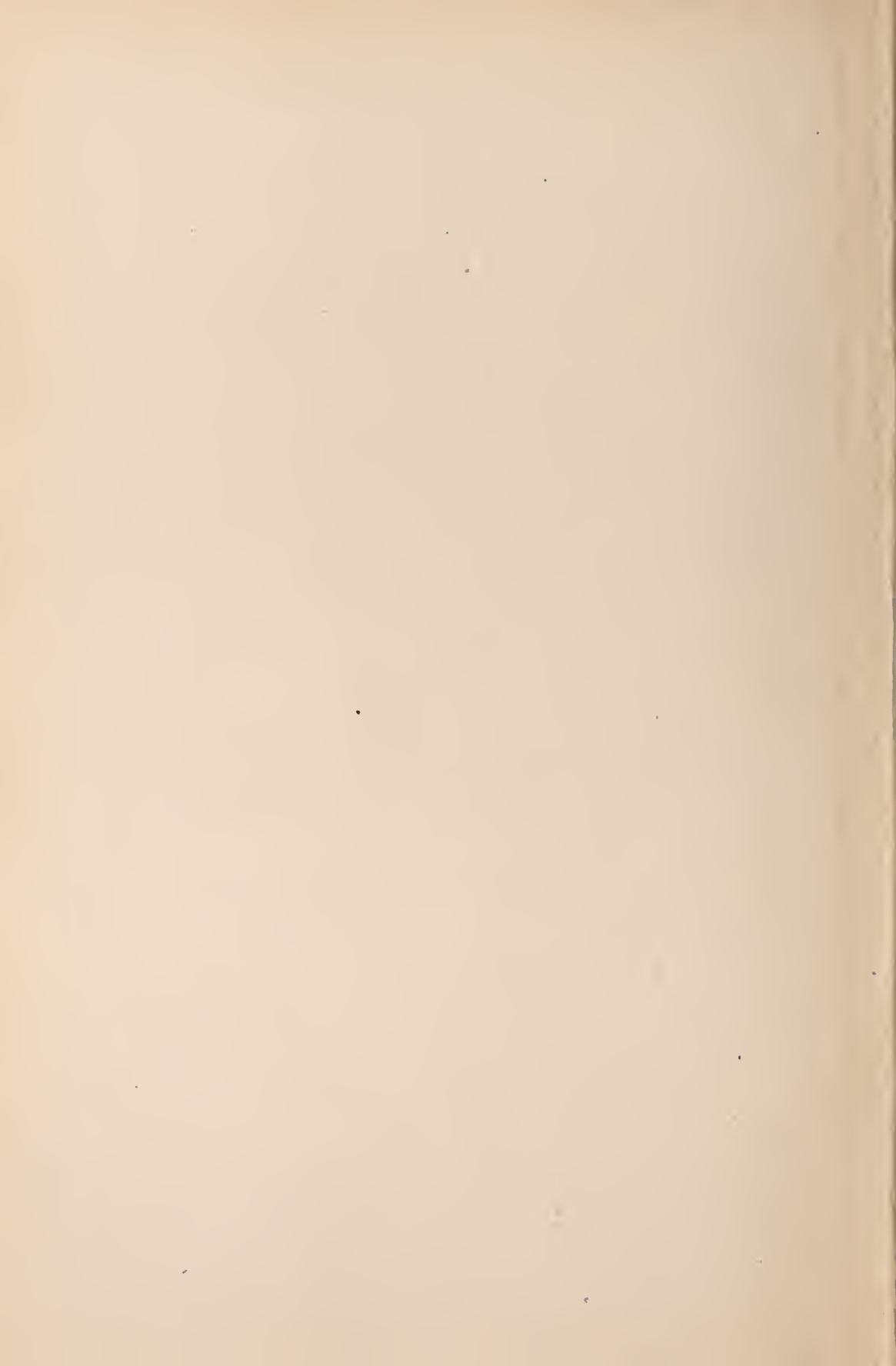
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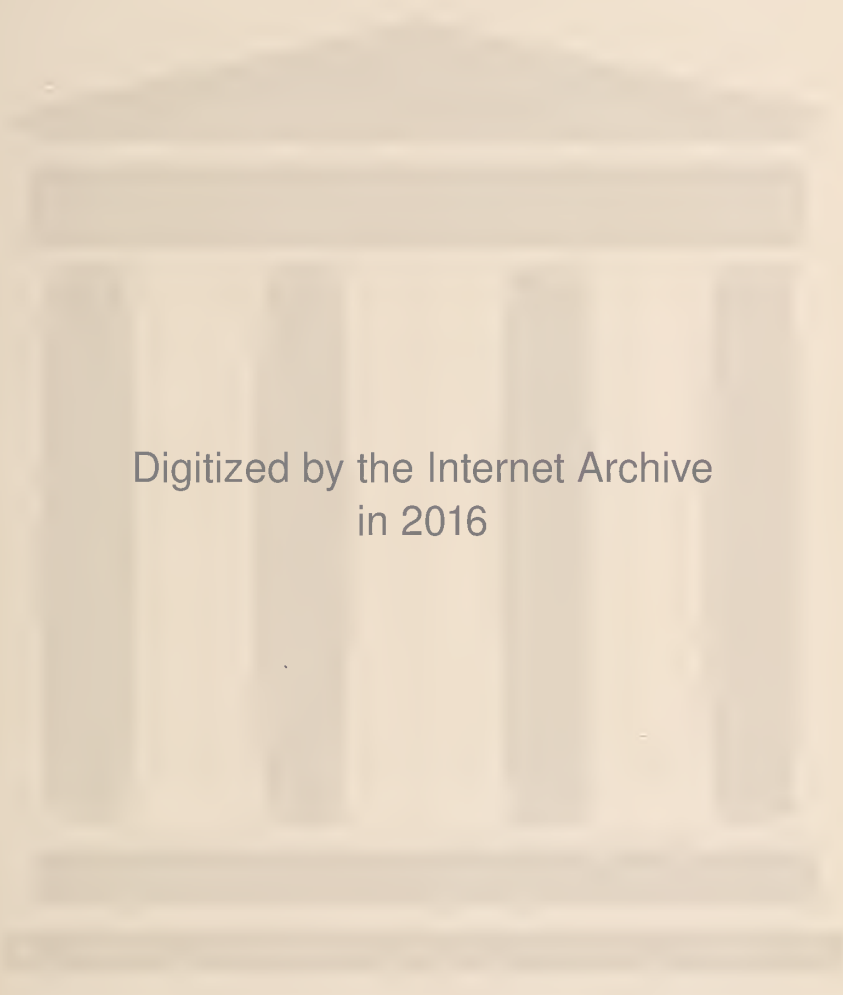
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ORIGINAL ARTICLES

SYMPOSIUM ON TUBERCULOUS CERVICAL GLANDS

CEDAR POINT, 1907

SURGICAL PATHOLOGY OF TUBERCULAR CERVICAL GLANDS.

H. J. WHITACRE, M. D.,
Cincinnati.

[Read before Surgical Section of O. S. M. Association, Cedar Point, 1907.]

The correct understanding of tuberculous adenitis began with the discovery of the tubercle bacillus. Previous to this time glandular disease in the neck had been loosely classified as simple hyperplasia, scrofula, malignant and tuberculous disease, without very definite lines of differential diagnosis. Careful anatomic study of the lymphatic system, accurate investigation of the etiologic factors concerned and a perfected pathology have now given us a very rational basis for accurate surgical treatment.

The term scrofula has been practically abandoned and all of these cases, together with a large percentage of the cases formerly looked upon as simple hyperplasia are now recognized as genuine tuberculosis. Formerly glandular tuberculosis was supposed to be an expression of a generalized infection by the tubercle bacillus. A more accurate study of the disease has demonstrated, however, that it is a purely local process, and that it remains local for a sufficient length of time to make surgical results possible.

In a limited number of cases tuberculous infection of the lymphatic glands of the neck is of hematogenous origin and is secondary to a central focus in some other part of the body, but as a rule the infection is transmitted through the lymphatics from a peripheral portal of entrance. The germ passes through this portal into the connective tissue lymphatic spaces, thence on through the lymphatic vessels to the first lymphatic gland in the lymph system of this given anatomic area, and is arrested here, as in a filter, where it develops typical tuberculous tissue. This first

gland very soon loses its protective filtration properties however, and tubercle bacilli pass on to the next, and the next, lymphatic gland, until eventually the entire gland system of this particular anatomic region becomes involved. With a continuance of the process it is but natural to assume that related lymphatic systems, contiguous structures or remote organs will become infected. There need be no tuberculous disease of the tissues at the seat of entrance, or the infection may occur in very definite connection with an evident focus in the skin or mucous membrane of the head.

It is now an established fact that bacilli may penetrate the intact mucous membrane and produce glandular tuberculosis without attendant disease at the point of passage. Caries of the teeth stands in a double relationship to tubercular glands of the neck. It gives rise to chronic inflammatory hyperplasia of the glands, thus predisposing the glands to infection by tubercle bacilli which have entered through other channels, and secondly, Ungar and Stark have demonstrated that the bacilli may and frequently do enter through carious teeth to cause tuberculosis of the glands.

The tonsils have received much study in this connection and the results have been most interesting. It will not be possible to review the work that has been contributed on this subject, but will probably suffice to state that routine examinations of this organ have so frequently demonstrated either a tuberculous lesion or the presence of tubercle bacilli, where clinical evidence gave no suggestion of such findings, that the tonsil is now looked upon as the most frequent portal of entrance in tubercular glands of the neck. It will likewise be at once apparent that an unsuspected tuberculous disease of the tonsil becomes a serious danger to these patients, since a failure to observe this point, in the operation for tubercular glands of the neck, may leave behind the active primary focus of the disease.

Abrasion of the scalp, or mouth, eczema of the scalp, and pediculosis will likewise furnish portals of entrance for the germ. Secondary glandular involvement is easily understood in tuberculosis of the tongue, gums, or skin.

A predisposition to infection may be assumed in a majority of instances. This predisposition will consist in an hereditary taint, in about one-third of the cases, a condition of lowered general vitality following acute or continued illness, or the predisposition may be confined to the glands themselves and consist in a chronic hyperplasia. A majority of the cases occur in children with weak digestion. The statistics of Fürnrohr, v. Bergmann, Fränkel and others would seem to indicate that, while the disease may develop at any age, the majority of cases occur between the ages of ten and thirty. The sexes are about equally affected.

The nature of the lesion produced in the lymphatic glands varies sufficiently to give considerable variety to the clinical picture presented by the disease. In certain instances a single lymphatic gland or an entire group of glands undergo an hyperplasia which causes them to increase greatly in size, yet on section the naked eye and oftentimes the microscope fails to discover the usual appearance of tuberculous tissue. Culture or animal experiments alone will clear up the diagnosis. Glands of this sort show marked fibrous tissue, with hypertrophy of the trabeculae and of the capsule of the glands; they are firm in consistency and are not adherent to each other or to surrounding structures. It is very evident that difficulty will be experienced in making a differential diagnosis between simple hyperplasia and tuberculosis.

In the vast majority of cases the anatomic lesion differs in no way from that usually presented by tuberculous inflammation. Typical miliary tubercles develop in a single spot or throughout the gland, and by their development become confluent, or a diffuse tuberculous infiltration is presented from the very beginning. More and more of the gland structure becomes involved by the process, caseation appears promptly in the centre and all lymphadenoid structure is eventually replaced by tuberculous tissue. As will be seen in the specimens presented, the process will present varying stages of development in the separate glands of a given group, and the size will vary from that of a pea to an English walnut. Particular attention is called to one point well illustrated in one of these specimens, namely, that the small size and external appearance of a gland may not be relied upon as an indication that a gland is tuberculous.

An operation for tuberculous glands of the neck which removes only those glands which are enlarged must be looked upon as an incomplete operation and will invariably be followed by recurrence.

An infected gland may continue for a long time as a tuberculous nodule with a caseous centre or the caseation may become complete. Such a caseous gland will become adherent to adjacent tissues, and will either remain dormant, or it will become secondarily infected by pyogenic germs and break on the skin surface, or it may rupture into a vein or into the trachea. When such a gland ruptures on the skin surface the caseous material is discharged, and if no tuberculous tissue remains in the capsule of the gland, the sinus will heal after a time. It much more frequently happens, however, that many glands have been fused together by extension of the process to and through the capsules, and the rupture of a gland on the skin surface opens up a communication with a whole series of glands which are still actively tubercular and a sinus persists. Many sinuses may form in this way and the entire neck will become riddled by sinuses and dissecting abscesses and all of the structures of the neck will become involved in the inflammatory induration.

It must be understood, however, that this involvement of the capsule of the gland and the surrounding connective tissue structures comes only with extensive caseation and abscess formation. The lymph-bearing connective tissues and the fascial planes become infected so soon that no operation can be looked upon as complete which does not include a lymphatic dissection of the anatomic zone. Modern surgical demands require that the glands, fat, infected tissue, indeed everything except the muscles and nerves, be removed.

A mixed infection occurs in a fairly large percentage of cases, and contributes largely to the periadenitis which gives abscess formation and a brawny induration. When a simple caseating gland or a mildly infected caseous gland remains in the deeper tissues for a considerable length of time there is a very great danger of adhesion to contiguous structures and a spread of disease. Osler has stated that in three-fourths of the cases of acute tuberculosis the infection spreads from an infected gland.

The author has recently treated a case of tuberculous glands of the neck in which a caseating gland ruptured into the trachea with the formation of a gaseous tumor in the tissues of the neck. This was followed very promptly by distressing symptoms of pulmonary involvement. Extension of the tuberculosis, by contiguity, to

the pleura, is a much more serious danger than has ordinarily been supposed, indeed some authors claim this may not infrequently be the explanation of a pulmonary tuberculosis. A direct rupture of a gland into a vein or gradual leakage into a vein through a minute ulceration is looked upon as the usual manner in which a general tuberculous infection takes place. A complication of this sort will explain tuberculosis of the kidney, tuberculosis of the epididymus, tuberculosis of joints or a general miliary tuberculosis. The tendency to a generalized infection is very well illustrated by a patient who recently died under my care. This patient had an incomplete operation for tuberculous glands of the neck about two years before his death. A great number of operations were subsequently done upon the neck; a focus of tuberculous infection then developed simultaneously at the right costal border and in the left thigh; six months later the patient was operated upon for tuberculous peritonitis and miliary tubercles were found scattered over every part of the peritoneal cavity; and finally after one year of fairly good health he died from a tubercular basilar meningitis.

These points are farther emphasized by the statistics of Demme, compiled from the first twenty years of the Jenner Children's Hospital in Berne. He found that in 145, or 21 per cent of the patients who were affected with pulmonary tuberculosis, the disease first developed in the glands of the neck.

This is all in marked contrast to the claim, so often made, that tuberculosis of the glands of the neck serves to protect the patient against further or future invasion of the tubercle bacillus and furnishes a strong argument in favor of the early radical removal of tuberculous glands of this region.

THE SURGICAL TREATMENT OF TUBERCULOUS LYMPH GLANDS.

BY C. A. HAMANN, M. D.

[Read before the Surgical Section, Ohio State Medical Association, Cedar Point, 1907.]

The surgical treatment of tuberculous lymph glands at once comes up for consideration when the diagnosis of the condition has been made. It is often a perplexing problem to decide whether enlarged glands are tuberculous. However, this paper does not concern itself with the diagnosis.

Another matter to consider before adopting measures of relief is the probable source and

atrium of infection. It is now well known that tubercle bacilli are frequently carried to these glands from carious teeth and through lesions in the tonsils; indeed, the reason that tubercular glands are of most frequent occurrence in the neck is to be sought in the easy and numerous avenues of infection through the oral cavity. Hence the proper care of diseased teeth, the removal of diseased tonsils and of adenoids is an important part of the treatment. Too often are diseased tonsils not removed or adenoids neglected in the treatment. This is one of the reasons why recurrence of the trouble, or, rather, the involvement of other glands, takes place, necessitating repeated operations.

That much may be accomplished by non-surgical measures is claimed by competent observers. General tonic treatment, out of door life, residence at the seashore—in short, all the measures now adopted in the treatment of pulmonary tuberculosis are capable of curing a certain percentage of cases. These measures should also be adopted, if possible, after operations. This part of the treatment is too often neglected by the surgeon, who is apt to consider only the surgical side of the question. Attention has of late been directed by Halsted to the value of the climatic and hygienic treatment of surgical tuberculosis, particularly bone and joint disease. The medical treatment of gland tuberculosis is reported to give from 25 to 75 per cent. of cures. However, some 25 per cent. of these cases subsequently develop pulmonary tuberculosis, and I believe firmly that the surgical treatment (removal of the diseased glands) gives a far better outlook for permanent cure than the hygienic and medical treatment. The ideal method is a combination of the two.

Indications for surgical treatment: First, after failure of non-surgical measures and if after removal of the apparent cause the glands do not disappear, operation is indicated. Second, when the glands have broken down, when abscesses and fistulæ exist, surgical measures are to be resorted to.

A few words as to the semi-surgical measures, if we may use the term, may be said. I refer to the use of ointments and injections, external applications of iodine, etc. I have never seen any good from ointments; they only cause harm by irritating the glands and causing adhesions. Injections of various substances have been made—I will not take time to enumerate them. They have to be made repeatedly, the treatment is prolonged and uncertain, foci of disease are left behind, and I do not believe in their efficacy.

Complete extirpation, when possible, is the proper procedure.

When abscesses exist, they should, of course, be opened, tuberculous material curetted away, sinuses opened up, curetted, swabbed out with pure carbolic acid, followed by alcohol, and the wound cavity packed with iodoform gauze. In cases in which the glands are broken down, when peradenitis exists, when the fascia is tuberculous, when important vascular and nerve trunks are implicated, complete extirpation is often impossible. However, the above mentioned procedures will probably result in cure, though repeated operations may be necessary. The importance of repeated operations is not to be forgotten. If sinuses persist, if other glands become involved, we should not become discouraged. Follow up the case, operate again and again, and ultimately success will crown our efforts.

I will next speak of the technique in cases in which the glands have not broken down; at any rate, no external openings exist.

The Incision.—The first matter to consider in planning the incision is the proper exposure of the glands. That is the most important point; other considerations are secondary. We want to expose the diseased glands through a sufficiently large opening to enable us to do good surgery, remove all diseased structures and see what we are doing. Notably should the great vessels be exposed in all cases when we are operating in their immediate proximity.

Dollinger has employed a method which he refers to as "subcutaneous extirpation." His incision is made in the nape of the neck, in the scalp or in the hairy portion of the neck posteriorly, and from this incision he works forward by blunt dissection and hauls out the glands by a grubbing process, which only needs to be mentioned to be condemned.

When possible, the incision should be in the plane of tissue cleavage—*i. e.*, parallel with the elastic fibres of the skin—in the direction parallel with the collarbone. Kocher insists strongly on such incisions in neck operations, because of the narrower and more concealed scar that results. A vertical incision along the posterior edge of the sterno-mastoid affords good access to many of the glands. A Z-shaped cut may be necessary, or flaps may have to be raised, or we may make an S-shaped cut. It does not make much difference, if only there is a good exposure of the parts so that a careful dissection can be made, with the important vascular and nervous structures in sight.

The structures overlying the glands should be

completely divided, so that the capsule is thoroughly exposed. It is only when the capsule is thus uncovered that the shelling out process is easy. Frequently inexperienced operators make the mistake of not doing this, and the operation is rendered difficult and prolonged. The external jugular vein is, if necessary, to be divided between two ligatures. The branches of the superficial cervical plexus can frequently be saved. If possible, this should be done, though no great harm results from their division, and sensation is in time restored. The spinal accessory nerve should be recognized and should not be cut. Division of this nerve results in a drooping of the shoulder which is unsightly and may also produce scoliosis. The nerve is encountered beneath the upper end of the sterno-mastoid and at the middle of its posterior border; often it is completely surrounded by glands. In the deeper dissection the brachial plexus is often encountered, and we have to peel the glands off it. The deep fascia over this plexus may be tuberculous and then extreme care is necessary. The phrenic, hypoglossal and vagus nerves are, in my experience, not often in danger. Division of the phrenic is not productive of harm; injury to the vagus is not serious either. Division of the hypoglossal, of course, paralyzes one side of the tongue. The surgeon should always work toward the well exposed gland capsule. When no peradenitis exists, the glands shell out easily, but when adhesions have taken place the enucleation is very difficult. The structure most to be dreaded is the internal jugular vein. To avoid injuring it and to facilitate the control of bleeding if it should be cut or torn, we should follow the rule long ago laid down by V. Langenbeck—namely, to thoroughly expose it; then we can work away from it. An additional expedient is suggested by Murphy—namely, to place under the pulley of the omo-hyoid a roll of gauze to compress the vein, thus keeping it filled in its proper portion and more easily recognized. This plan also tends to prevent air embolism, which is a very distinct danger, notwithstanding the statements of certain animal experimenters. To open the internal jugular vein is a very disconcerting and troublesome accident; the bleeding may be terrific, and the danger of air embolism is great. The bleeding is by no means easily checked. If you seize the vein, the opening is apt to be torn larger, and the application of a lateral ligature or the ligation of the whole vein, while it is easily done on paper, is usually a difficult task. Personally, at any rate, I have the greatest respect for this vein and its large tributaries and bend all my

efforts toward avoiding its division. I know perfectly well that the vein may be tied and no harm result. The venous return in the neck is so free and there are so many collateral channels that no stasis results. In a case in which the veins had been compressed for some time by neoplasms both internal jugulars have been tied and no stasis resulted.

In a case of extensive glandular tuberculosis operated upon during June last I injured either the internal jugular or the subclavian close to their point of junction. There was an enormous gush of blood, which was promptly checked by the pressure of the finger. On lifting the finger and attempting to seize the injured vessel I tore the hole still larger. The only thing that could be done was to pack gauze tightly down on it. A large quantity was used, making a good sized wedge-shaped compress. This permanently controlled the bleeding. The patient made a prompt recovery, and no stasis resulted. It is when the adherent glands are being dissected from the wall of the vein that the vessel wall may be torn. It is important to stick close to the gland capsule and to work away from the vein. If the relation between vein and gland is too intimate, a portion of the capsule had better be left attached to the vessel. The pleura may be damaged in operations involving the lowermost glands, though this accident does not often happen.

The thoracic duct has sometimes been torn. When this accident occurs, we may recognize it by the escape of a turbid or milky fluid. The proper plan of treatment is to pack the wound. I believe it is rarely possible to accurately ligate the duct. One reads of surgeons suturing the rent in the duct and can only marvel at the great skill possessed by the operators in finding the opening and closing it with a stitch. As a matter of fact, little or no harm comes from a tear of the duct, for experience has shown that recovery has ensued without any complications.

It is scarcely ever necessary to divide the sternomastoid muscle in order to gain room; it can be displaced sufficiently. The operator need not hesitate, however, to do so. The ends are subsequently to be united with catgut.

It is important, I think, to tie all bleeding points and to get the wound perfectly dry before closing it. Neglect of this precaution may lead to troublesome after-hemorrhage and the formation of haematomas, besides favoring infection.

After operations of any magnitude it is best to drain, using a split rubber tube enclosing a strip of gauze. The platysma myoides is sutured with

catgut, and a continuous silk suture is used for the skin.

After the wound heals the scar may undergo various changes; it may become hypertrophied and keloid-like. If the parotid has been injured in the manipulations, a cystic swelling may form. This disappears after tapping and the application of pressure. The area about the wound may remain much indurated for a time. When both sides of the neck need to be operated upon, it is advisable in some cases at least to take one side at a time, for the operation may otherwise be too prolonged. As is well known, there are always found more diseased glands when the overlying structures are divided than can be felt through the skin. They should all be removed, if possible.

Tuberculous glands are not often found in other localities than the neck. I have removed them a few times from the axilla and from the groin and have reported a case in which acute tuberculosis of the external iliac glands simulated a periappendiceal exudate. Statistics show that from 52 to 75 per cent. of cases are permanently cured by surgical measures.

Are operative procedures ever contra-indicated? Yes. In young children (under four years of age) the medicinal and hygienic treatment is to be persisted in longer, because even large glandular masses may subside, and extensive operations with considerable loss of blood are not well borne.

Furthermore, operations are not to be advised in anæmic, run-down individuals, with marked pulmonary involvement, and in patients who have tuberculous glands in different parts of the body, with extensive periadenitis and adhesions, rendering complete extirpation impossible.

THE MEDICAL TREATMENT OF TUBERCULOUS CERVICAL GLANDS.

BY JOHN P. SAWYER, M. D.,
Cleveland, O.

[Read before the Surgical Section of Ohio State Medical Association, Cedar Point, 1907.]

In all patients with tuberculosis the aim is to favor and increase the cellular vigor of the patient, that he may better oppose the development of tubercles already established when the diagnosis is made and thereby check establishment of fresh foci proceeding from those already progressing in tissues invaded and unable to resist. In general, this aim is met with considerable efficiency by the conservation of strength through rest during elevation of temperature; by open air

living, as it provides abundant pure atmosphere and improves vasomotor tone, and by diet adjusted to the digestive power of the patient and his need of increased food supply in the blood plasma.

Drugs have a subordinate place in the scheme, but can hardly be neglected without at least the loss of time and occasionally of positive aid to physiological activities on which we must rely for successful management. In some cases these individual physiological activities may be greatly assisted by operative destruction or removal of tubercular foci wisely planned and efficiently done. Unless so planned and done, the result will be disappointing as to benefit realized and perhaps actually harmful in the progress of the case.

Tubercular germs enter the body usually through one of two routes—digestive or respiratory. The mouth and nose, therefore, are the great avenues of infection and in a portion of their extent afford a kind of "crossroads," at which the system is subjected to infection through atmosphere or food. In view of this structure, it is not surprising that in a given case opinions may differ as to the route of entry. The weight of probability seems to be for the vastly greater frequency of infection by inhalation.

The protection of the body from unnecessarily increased danger of infection at these points is a measure of prevention which it should be the duty of every physician having the care of children to bear constantly in mind and diminish as far as possible by suitable treatment the likelihood of such infection. Adenoids, tonsils and the mucous membrane adjacent but not superimposed should be carefully attended to. Infection of these tissues is primary in 5 per cent. or more of all cases. The germs may pass the membrane without establishing themselves therein and find primary lodgment in glands cervical or bronchial. The invasion of the affected glands, whether cervical or bronchial, is not alone of tubercle bacilli, but also of other germs and toxic material. The care of nose, throat and mouth in each particular is therefore of importance not only for the prevention of a possible infection, but also for stopping its bad effects continuing after the infection has been recognized.

When once the cervical glands have been infected the question arises as to the probability of these being the only glands so infected, or as to the probable infection of other glands. If it can be thought that the individual is tubercular only as to his cervical glands, their prompt and thorough removal takes him out of the class of tubercular patients. No alternative need be con-

sidered, but rather operations should be held out as imperative in logic and in practice. If the infection of other glands can be demonstrated or is a probability, the removal of the cervical glands does not leave the subject non-tubercular, nor practically does it make him other than a tubercular patient still.

The medical as distinguished from the surgical treatment of these cases is therefore the medical treatment of patients with tuberculosis in whom the cervical glands are but part of the tubercular tissue. In a vast majority of patients it is fair to presume that the bronchial glands are also infected. Bovaird's statistics show their infection is 95 per cent. of all cases. It is therefore a safer policy to assume a more extensive infection than in the cervical glands alone, though in them may be the earliest discovered and only apparent localization.

The removal of adenoids and tonsils or the treatment of membrane and the care of the mouth, if to this time inefficient, should be painstakingly carried out. The measures of internal medicine applicable to the tubercular patient are the measures which are applicable to the special group considered. Open air treatment, rest during an elevation of temperature and the careful adoption of measures of good hygiene, the efficiency of digestion and the corresponding dietary regulations are of prime importance. It has been noted at Sea Breeze and other places that the sea atmosphere, with well managed care in these other details, is peculiarly favorable for these cases. If possible, change of climate should be made by the subject of the swelled tubercular glands.

When these essential conditions are provided at the sea or inland and their progressive enlargement is then noted, these glands should be removed and the patient should steadily be kept under the medical care outlined. The surgical removal of the glands in no wise should remove the patient from the medical treatment. The surgeon may remove these most active foci of tuberculosis, but failure to maintain the medical treatment will lose the advantage gained unless the tissue removed be the only tissue infected.

When suppuration occurs and absorption adds sepsis to tuberculosis, operative help is essential to successful prosecution of the physician's plan. The physician in charge may be efficient in both medical and surgical measures, but, unfortunately, the combination is not usual, perhaps increasingly uncommon, as the development of theory and practice makes such broad attainment in diverse directions increasingly difficult.

Thus it is peculiarly fitting that surgeons and physicians should freely interchange experience and thought to the better rendering of all our assistance to people suffering from a disease till recently hopeless as to life, but now to be met with courage and great hope, though still without positive assurance.

The long roll of drugs especially employed need not be called this morning. Iodid of iron and hypophosphites have been most satisfactory in my experience as aids to the more important conditions already stated. Tuberculin and its variations have not found general favor as yet in practice. We may still hope for improvement in efficiency on this line. The use of creosote or its substitutes is often of practical advantage, and however we may fail to understand its action, experience will hardly warrant refusal to try it, especially in cases doing badly without it. Local applications and injections are of doubtful advantage. I have seen no better results with them than without.

The use of the Roentgen rays is to be presented in another part of this discussion, and I have no experience to warrant an expression of my own. Nor do I think this the place to discuss the physician's activity in meeting special symptoms or disturbances arising in the course of the disease. They are better subjects for the medical section, and here our attention is to be the principle stated, that our aim is to improve the cellular vigor, bearing in mind the astounding ability of tissues to limit tubercular disease and develop individual recoveries under the favoring conditions stated.

Of these, rest and open air are not difficult to arrange, and their benefits may be had anywhere about us. For years I have had patients sleeping with comfort and benefit in the open air in our most rigorous weather conditions, and only sensible trial is needed to convince any one that our climate is no bar to these measures.

But something should be said about the diet for these cases. The ability of a patient to utilize fresh air and sunlight depends upon the pulmonary mucosa and the blood supply. None the less truly does the ability of a patient to utilize the good food requirement depend upon the integrity or physiological capacity of the gastro-intestinal mucosa and its physical endowment of a muscular apparatus.

The patient may be completely at rest in sheltered out-of-doors location and still be unable to convert the stored up energy of foodstuffs into suitable form for nutrition of his body, and so unable to hold in check—to say nothing of over-

coming—an established tubercular infection. So important is this that we may well stop to consider if there be not many cases of tuberculosis whose unfavorable progress is to be ascribed to digestive failure rather than to the virulence of the infection, whether this be simple tubercular or mixed.

The purpose of rest is to conserve energy, that the cells may not become exhausted by needless expenditure in their struggle against focal process of the disease. None the less must the supply of energy to the body be maintained and brought to the cells in best abundance if the purpose is to be served. Therefore, of the fitness of the stomach to receive food and care for it efficiently, it is important to judge through direct examination of the individual as truly as it is important to judge by percussion and auscultation of the condition of the pulmonary tract.

We see excessive infiltration, high temperature, abundant expectoration, all subside and yield to treatment readily in many patients whose nutrition is well performed. We see cases with much less infiltration, lower temperature, comparatively scanty expectoration, progress steadily to an unfavorable termination, and in many of these cases may be recognized on direct examination a marked failure of gastric, and secondarily of intestinal function.

Too often it is the case that with the carefully taken temperature and searching examination of the chest, with microscopical examination of the sputum, rest and open air treatment are ordered for the patient and a routine of diet prescribed. The patient in whom tubercular infection has been demonstrated or is suspected may show either hyperchlorhydria or achlorhydria (less often euclorhydria). Important as this consideration may be allowed to be, of far greater import is the determination of the motor function of the stomach and bowel and whether or not the mucosa be catarrhal.

Routine diet lists are seldom suited to these varied disturbances. A little food well digested, with increasing capacity to care for greater quantities of food, is a vastly better condition than is seen in patients in whom forced feeding is attempted when there is atony of the stomach or a degree of gastrectasia, and in whom by reason of catarrhal phenomena with commonly associated irritability of the small bowel has developed a hurried peristalsis, shortening the period of intestinal digestion, tending to provoke overloading and consequent atony of the large bowel, with the resultant evils. These difficulties are often wrongly attributed to the general process,

which has been skillfully recognized in the chest, while a diagnosis of the digestive condition has not been considered.

In few other disorders and surely in a vastly less number than in the great number of tubercular patients in the community does the intelligent care of the digestive tract work more for the benefit of a remote process. A stream never rises higher than the source of its supply, and the blood making organs never furnish a better plasma than the gastro-intestinal mucosa and musculature permit, for the well-spring of human energy is foodstuff converted through its initial aid into plasma.

It matters not how many calories of foodstuff are taken from plate or glass, unless these can pass the barrier of the mucous membrane they can never undergo elaboration nor reach assimilation, and a patient may starve in the midst of plenty because his food fails of absorption. These considerations apply to cases of glandular type of the infection as well as to any other.

While utilizing all surgical technique and skill to eradicate early and principal foci of tuberculosis in the cervical glands and to prevent absorption and sepsis as an added burden, it seems the surgeon's activity is one of contributing aid to the physician, for which the medical man should early seek in cases characterized by the predominance of the process in the glands and its apparent progress after institution of treatment well planned along each line discussed.

A person infected with tuberculosis is always for that reason a medical case. He may also, and especially in this field, be helped by additional surgical procedures. For this surgical assistance it is the duty of the physician to seek, according to his judgment as to the probability of in a few cases transferring a tuberculous case into a non-tuberculous one or of so decidedly eliminating a principal source of continued infection that the later struggle against the remaining tubercular foci may be carried on with decidedly better prospect of success.

X-RAY TREATMENT OF TUBERCULOUS GLANDS OF THE NECK.

W. C. HILL,
Cleveland, O.

[Read before the Surgical Section, Ohio State Medical Association, Cedar Point, 1907.]

The first reports of cases of tuberculous adenitis treated by the X-ray are found in the JOURNALS of 1904, but this method of treatment was used advantageously as early as 1900.

The early cases and cases where there are numerous small infected glands respond most readily to radio-therapy, a cure resulting in about 75 per cent. But X-ray therapy is by no means limited to this class of cases. Good results have been obtained in that unfavorable chronic type where there are suppurating glands and "matting" of the tissues, precluding a thorough operation. In this latter class of cases, to obtain satisfactory results it is advisable to excise the suppurating and large discrete glands and follow with the X-ray. The glands are treated *en masse*, and by regulating the penetration of the X-ray the operator can obtain the desired therapeutic result upon the deeply situated as well as upon the superficial glands.

Glands about to undergo suppuration are hastened in the process, when they should be excised or incised and drained, the sinuses healing rapidly as the exposures are continued. Glands which have not reached the stage of suppuration gradually subside, the signs of inflammation disappear, and in favorable cases after a course of from 20 to 40 treatments there will be left but small, hard bodies, connected by fibrous bands, remains of the glands and lymphatic channels. Upon section these hard bodies are found to be composed entirely of fibrous tissue, all glandular structure having disappeared.

When the deep cervical glands are affected, there is frequently in the apex of the lung of the corresponding side a focus of tuberculosis, which will oftentimes be found to have disappeared after the glands in this region have been treated.

The technic among the better operators in the treatment of these cases varies to some extent, but not materially. A tube emitting a ray of sufficient penetration to reach the deep glands is used. The tube is placed in a protective shield at a distance of twelve or fifteen inches from the area to be exposed, the shield protecting from exposure all parts except those to be treated. A current of two milliamperes is passed through the tube for ten minutes, this being increased up to fifteen minutes if it is found that a larger amount can be used without causing a dermatitis. The treatments should be repeated three times a week.

In favorable cases as the treatments progress the patient will be found to gain in strength and weight and show a general improvement in health, and at the end of twenty to forty treatments the glands will be found to have reached that stage of small shot-like bodies, the size depending upon the previous amount of inflammation. The patient may then be called cured.

There are several theories concerning the action of the X-ray upon the glands.

1. That there is a hyperæmia of the tissues, with increased nutrition and augmented phagocytic action.

2. That the X-ray has a bactericidal action upon the tubercle bacilli.

A third theory, which now has numerous supporters, is advanced by McCulloch, of London. We will call this the opsonic theory.

It has been found possible to obtain from caseous matter of tuberculous glands an auto-immunizing agent, which produces a positive with no negative phase in the opsonic index of the blood of inoculated tuberculous subjects. Repeated inoculations cause, according to Wright's opsonic theory, immunization to tuberculosis. This vaccine is elaborated by infected glands and glands in the region of the infection.

The X-ray is known to have a selective action upon pathological tissue, and McCulloch has advanced the theory that the therapeutic effect of the X-ray depends upon the induction of auto-vaccination by its solvent action upon impervious inflammatory tissue about the tuberculous glands, thus freeing the vaccine.

McCulloch and other operators have made careful observations upon the effect of the X-ray upon the opsonic index of cases while under treatment and have found the effect coincides with that caused by the inoculation of tuberculous subjects with vaccine obtained from the caseous material of tuberculous glands, a progressive improvement in the opsonic index approaching the normal. According to Wright, "When repeated examination shows a persistent normal opsonic index to the tubercle bacillus, the diagnosis of tuberculosis may with probability be excluded." Accepting this theory, a tuberculous adenitis patient whose opsonic index to tubercle bacilli remains persistently normal after a series of X-ray exposures, we may say is cured.

SUMMARY.

1. Suppurating and large discrete glands should be removed by operation and operation supplemented by X-ray therapy.

2. After surgical intervention recurrence is much less frequent if followed by X-ray treatment.

3. There is no pain associated with this method of treatment.

4. It is not necessary for the patient to remain in a hospital, he can be in the open air and can follow out the proper hygienic measures which are so important in this disease.

5. There is no danger when administered by a competent operator.

6. There is no scarring.

7. The results in certain classes of cases are better than results from operation.

THE RADICAL OPERATION FOR THE REMOVAL OF TUBERCULOUS GLANDS OF THE NECK.

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[Read before Surgical Section Ohio State Medical Association, Cedar Point, 1907.]

The removal of cervical glands has in the past either been considered a trivial operation when performed, or when there was much involvement of the cervical chains the case was only too frequently considered inoperable. We know today that the only scientific operation for this affection is the radical extirpation of all the affected and non-affected glands, together with the gland-bearing fascia and adipose tissue which surrounds them, and that instead of being a minor operation it now ranks as a difficult major operation. We also know that many cases of extensive involvement which heretofore have been considered inoperable are amenable to the radical operation in skilled hands.

It is now a well-established fact that the commonest mode of infection of the lymphatic glands of the neck with tuberculosis is through the tonsils, and that this may even take place without a visible lesion of the mucous membrane of the tonsil. No operation for tuberculous cervical adenitis is complete without at least an inspection of the tonsils and the determination whether or not adenoids exist, and when such are found diseased they should be removed after the radical operation is completed, either immediately or at an early period thereafter.

No description of the radical operation is complete without a brief mention of the arrangement of the lymphatics in question. According to Poirier and Cuneo ("The Lymphatics," English translation, page 247), the lymphatic glands of the neck may be divided into two groups, the first group is designated the peri-cervical circle, forms a collar-like arrangement at the junction of the head and neck. The second group, called the descending cervical chains are more commonly known as the deep cervical glands. This group detaches itself on either side of the circle and

extends downwards along the course of the great vessels to the root of the neck.

In the first group forming the circle about the neck, we have the sub-occipital glands (one to three in number). The mastoid glands (usually two in number.)

The parotid and sub-parotid glands (two to three in superficial group and ten to sixteen deeper). The sub-maxillary glands (three to six in number) and the submental glands (one to four); besides these we have the retro-pharyngeal glands situated deeply, usually two in number. Of this group the parotid and sub-parotid glands, together with the sub-maxillary glands, are chiefly involved in the tuberculous infection.

The second group of glands, or the descending vertical chains constitutes one of the most important glandular regions of the system, and it is with this group that the radical operation for tuberculous glands is chiefly concerned. This deep cervical chain comprises from fifteen to thirty glands, which extends beneath the sterno-mastoid muscle into the sub-clavian triangle. These glands also may be divided into two groups, viz.: sub-sterno-mastoid and supra-clavicular glands. The former being in intimate relation with the internal jugular vein, while the latter is found in the sub-clavian triangle embedded in a mass of adipose tissue which has been called "Fettpolster." It will thus be seen that the glands normally present in this region, are fairly constant in number.

In cases of simple enlargement of the cervical glands, it is quite difficult to differentiate between a condition of simple glandular hyperplasia and the true tuberculous adenitis. For this reason, medical treatment should be given a fair trial, especially in those cases where no sinuses exist. When such do exist, medical treatment is indicated only toward the building up and preparation of the patient for the radical operation.

During the operation the position of the patient is very important. The upper part of the body should be elevated, in order that the venous pressure be lessened, and the liability of hemorrhage diminished. This position also makes the parts more accessible to the operator; to secure it the patient is placed in the reverse Trendelenburg position, at an angle of about 45 degrees, a cushion being placed under the shoulders and the head turned to the side opposite to the field of operation.

Abscesses, when present, should always be evacuated and packed, some time previous to the radical operation.

Sinuses should be antiseptized either chemically or by the actual cautery.

INCISION.—Much has been written about the choice of incision, but in all we must meet two indications, namely: Good exposure and the cosmetic effect. Thus we have the transverse incisions as recommended by Kocher, which are carried along the folds of the skin, using two or more incisions for the completed operation. These transverse incisions possess the advantage in their tendency to contract and thus make a small scar, leaving a better cosmetic effect.

The S-shaped incision of Hartley and Senn gives excellent exposure, as does also the T-shaped incision, which has its vertical arm extending down to the clavicle running parallel or crossing the sterno-mastoid muscle and its horizontal arm in the sub-maxillary region. Dollinger (Transactions German Surgical Congress, 1903), advises and uses a unique incision which skirts the hair line of the scalp and neck, through which it is possible at least for him to make, subcutaneously, the radical operation. This method, while giving excellent cosmetic results, will hardly be generally adopted.

The incision which of late seems to be the most employed and the one which the writer has found the most useful on account of its excellent accessibility to the field of operation and its excellent cosmetic effect, is the following: The incision begins a little below the mastoid process and extends along the vertical hair line down to the clavicle (imitating as far as possible the Dollinger incision); it is then continued along the clavicle to the sternum. This incision extends through skin, platysma, and superficial fascia, forming a triangular flap, which is dissected free and reflected forward over the sterno-mastoid muscle. The deeper fascia is next incised and the extirpation of the glands "en masse" is begun, starting above the clavicle in the lower triangle of the neck. If possible all the affected and non-affected glands, the deep or gland-bearing fascia, together with the fat, should be removed. Care should be exercised not to rupture any of the glands.

Just how the dissection of the glands should be accomplished, whether by blunt dissectors, Kocher dissector, Cooper's or Mayo scissors, or with gauze dissection, or a combination of two of these methods is, I believe, a personal matter with the individual operator. I have found the Mayo scissors of great value in this enucleation. To use these scissors most successfully for dissection, it must not be forgotten that they possess really three functions, first, that of puncturing and

blunt dissection with the closed blades; secondly, that of separating the tissues by opening the blades, and lastly, that of cutting.

When the mass of glands in the lower triangle is quite free the dissection is then carried along the posterior border of the sterno-mastoid, which is the principal landmark of the operation, for underneath it the glands are found to follow the course of the internal jugular vein. The vein must be exposed throughout its entire length, as the deep cervical glands are closely in relation with it, and care must necessarily be used to avoid injuring this vein. The sterno-mastoid muscle is kept retracted well forward, and the dissection continued upwards to the point where the spinal accessory nerve enters the sterno-mastoid muscle. This nerve can usually be recognized by the contraction of the trapezius muscle when the nerve is pinched. Injury to this nerve is to be carefully avoided. The glands are dissected away from the nerve and when free are pulled up under it. The enucleation is now continued upward and completed, care being taken not to injure the facial nerve, in the upper angle of the wound. Glands of the sub-maxillary region can be removed through this same incision by retracting the upper part of the sterno-mastoid muscle well forward and enucleating under it. Occasionally it may be necessary to make another small transverse incision in order to remove large glands in this region. Occasionally it may also be necessary to divide the sterno-mastoid muscle in order to better extirpate some of the deeper-lying glands.

Hemostasis is an important factor in the operation. This should be made as complete as is possible, in order that the amount of shock be reduced to a minimum. The operation is necessarily a tedious one, requiring sometimes two hours for its completion. In severe complicated cases, with multiple sinuses and adherent glands, in order to minimize hemorrhage, Crile's method of temporary compression of the carotid artery can be advantageously employed. When enucleation is completed, and hemostasis secured, the wound is irrigated with an iodine solution (about 1% sol.) and the incision closed by first uniting the superficial fascia with continuous catgut. (According to C. H. Mayo this must be done to avoid stretching of the scar.)

A sub-cuticular stitch is used for the skin. Drainage should be provided for by a tube having a gauze wick in it.

There are certain accidents or dangers in the operation which must be avoided.

INJURY TO NERVES.—In general it may be said

that division of the sensory branches of the cervical plexuses in this region does no harm. Sensory nerves usually regenerate, while motor nerves do not, but leave distressing forms of paralysis. The most frequent nerve to be injured in this operation is the spinal accessory. This nerve crosses the upper part of the posterior triangle of the neck and enters the sterno-mastoid muscle about two inches below tip of the mastoid process. It can be easily recognized by pinching it on account of the visible contraction of the muscles supplied by it. It should be isolated in the beginning of the operation before the deeper dissection is continued. It should be isolated in the beginning of the operation before the deeper dissection is continued. It should be preserved for several reasons, in the young, on account of the atrophy of the trapezius muscle which follows its division and results in asymmetry of the shoulders, or very often typical scoliosis. It seems to the writer that there is still another valid reason why this nerve should be preserved. All the muscles of the chest are in a measure auxiliary respiratory muscles. In a case of tuberculous adenitis with a slight tuberculous involvement of the lung all of the auxiliary respiratory muscles are needed to aid in the healing of the focus in the lung. I have observed that patients with slight lung involvement in whom this radical operation has been made, do badly when the spinal accessory nerve is divided, perhaps due to the paralysis of these auxiliary respiratory muscles incident to its division.

FACIAL NERVE.—This nerve must not be divided, and great care must be exercised to avoid it. The lower fibers of the facial nerve are in greater danger of division, as a result of which injury we have a disagreeable paralysis of one side of the lower lip. This branch of the cervico-facial portion of the nerve has been worked out by Jaffe, and called by him the ramus anastomaticus collo-mandibularis. This paralysis is often temporary, but may be permanent. According to Dowd careful adjustment of the fascia in the upper part of the wound at the completion of the operation will favor regeneration of this branch if divided.

PNEUMOGASTRIC NERVE.—Injuring this nerve is not so likely on account of its deep situation under the jugular vein.

INTERNAL JUGULAR VEIN.—Injury to this vein frequently occurs, and every precaution must be taken to avoid such injury. Careful dissection, good exposure of field, no cutting in the dark, and cutting nothing on the stretch, are the best ways of avoiding such injury. Murphy advises

placing a gauze pad under the clavicle so as to slightly compress the internal jugular, thus rendering it more prominent. This is a very useful procedure. The vein when injured can be sutured with fine catgut as the pressure here is negative, or the rent in the vein may be closed by a ligature; or the entire vein ligated, which does no harm. On account of the danger of air entering the vein when opened some surgeons recommend keeping the operation field covered with water. This is hardly necessary, for when the vein is injured it can be immediately compressed, sutured or ligated.

PLEURA.—It must not be forgotten that the pleural cavities extend a short distance above the first rib, and that opening of it has occurred in these operations. Dangerous pneumothorax can result from such accident.

Injury of the thoracic duct has been recorded, although a rare accident of the operation. Such injuries may be treated by suture, packing or ligation.

As to the results of the radical operation for tuberculous cervical adenitis, Charles N. Dowd (*Annals of Surgery*, July, 1905), after reviewing the literature upon this subject and reporting one hundred cases of his own, in his summary, gives the following conclusions as to the results, which fairly represents the present status of the operation.

The records of operations justify the following assurances: (a) In favorable cases: Safety of operation (many operators reporting more than one hundred cases without mortality); a scar which is hardly to be seen; probable confinement to bed two or three days; the wearing of a bandage or dressing from one and a half to three weeks; freedom from recurrence in about 75 per cent., and ultimate recovery in about 90 per cent. of the cases. (b) In the less favorable cases: Safety of operation; less disfigurement from scars than discharging sinuses will cause; freedom from recurrence in 50 to 55 per cent., and ultimate cure in 70 to 75 per cent. of the cases.

DISCUSSION.

SYMPOSIUM ON TUBERCULOUS CERVICAL GLANDS.

Robert Carothers, Cincinnati: There are so many conditions occurring in the skin, hair, nose, teeth, mouth and throat causing an enlargement of the cervical glands, it is a mistake to call all enlarged cervical glands tubercular. Tuberculosis occurs sufficiently enough and is so disastrous in its results, when unmolested, to make it of great importance. Probably the cause in one-third the cases. One is not infrequently puzzled for a diagnosis, especially in children, for the exact cause.

The diagnosis is often apparent; at other times made with extreme difficulty, and positively determined only after an examination of one or more removed glands. In some doubtful cases, tuberculin has proven of value to make a diagnosis.

Given a case with a diagnosis made—what is to be done? Above all things and first the portal of entrance should be closed by removing the diseased tonsils, adenoids, tooth, ulcer of the mouth, or whatever the case may be. If the case is discovered early, or not far advanced, hygienic treatment should be given a fair trial. Air, fresh air, sea air, day and night has proven a tonic not to be forgotten or despised. Air not alone improves the appetite, but together with plenty of good food is a tissue builder and blood producer, making larger and more leucocytes to fight the invading disease. There is no medicine to be considered of much value, and for that reason medicinal treatment is a misnomer.

We are just on the threshold of a serum therapy which promises much. I am now watching a case of this character in the City Hospital, which is improving on good food, good air and tuberculin. My friends with whom I have talked on this subject have had similar experiences and are very hopeful for the future.

In some cases which are advanced when first seen, or in others in which a hygienic treatment has failed, it is a waste of time to delay and surgery becomes imperative. The removal of an enlarged gland here and there when felt through the skin is meddlesome and not of much value. A complete and thorough removal of all glands, superficial and deep, anterior and posterior to the sterno-cleido-mastoid muscles, together with the interglandular connective tissue, is the only operation at the present time which would seem satisfactory and which would cause a good end result. An incision, either triangular or well curved backward, from the mastoid to the insertion of the above muscle in the clavicle will so completely open the posterior territory that everything there can be reached with ease and by retracting the muscle forward and carefully dissecting one can go almost to the middle of the neck. Care should be exercised not to injure the spinal accessory nerve. The other posterior nerves which are sensory can be destroyed and not cause any after trouble. The important vessels and the important nerves, such as the phrenic, facial, pneumogastric and hypoglossal are cautiously guarded as one proceeds, and with care are not in danger of meeting with trouble. I have injured the spinal accessory nerve in one case, fortunately an adult, and not caused trouble. The phrenic in another case was severed and no disastrous results occurred.

The Mayo scissors of which Dr. Jacobson speaks have a fourth function. They are time savers. I am sure I can shorten this operation thirty minutes by the Mayo scissors, and hope never to be without them.

I have done this operation fifteen times; have had to do a second operation in one case, and with that exception, so far as I now know, I have not had a case in which I regretted the work or in which the case was not materially improved.

Care should be exercised in closing the wound to see that the facia as well as the skin is united

to avoid stretching and after widening of the scar. The incision above advised is especially advantageous for cosmetic purposes, being easily concealed by the hair and clothing.

I have nothing to say about the X-ray treatment. In my own hands it has been very unsatisfactory.

I believe the day will come when there will be some method of successfully handling these cases, especially when seen early, but at the present time in many or most cases I think surgery offers decidedly the most.

George W. Crile, Cleveland: I do not entertain for all clinical cases of tuberculous glands of the neck the same surgical treatment. Roughly speaking, I make three divisions—(1) a minimum excision of the lymphatic glands, (2) a maximum excision and (3) no excision.

In children who seem in good general health and present a history of rapid enlargement of but one or more lymphatic glands, with pyogenic infection, and who can have the most favorable hygienic conditions for one year, I remove only the large glands, requiring a minimum dissection and a minimum scar. These cases, as soon as the glands are removed, are sent to the seashore, in the north in summer and in the south in winter, and are kept from school for one year, or, if school work is done at all, it is by special instruction. But for a patient who cannot have such advantages and who must live in the same environs in which the infection occurred, a complete dissection of all the glands actually or presumably involved is made. This dissection is made with the utmost care. In the third group, those cases in which the glands have completely broken down, where the tissues of the neck are widely involved and large open spaces are present without definite tumors, I have found it best to lay open the skin, curette the field and use the X-ray. If the entire field closes, if the pyogenic infection is stamped out and new glands presumably tuberculous are found, a curative dissection may then be made.

A. F. House, Cleveland: The subject of glandular tuberculosis has been gone over so thoroughly in all its phases by the preceding speakers that there seems to be nothing left for me to say.

So far as I know, there is not as yet any differential diagnostic criterion of the initial stage of glandular tuberculosis. The surgeon is not able clinically to define accurately where simple hyperplasia ceases and tuberculosis begins, for it is not possible to determine whether there are bacilli or nodules or small foci of caseation present without a microscopic or bacteriologic examination of the enlarged glands, for the initial stage of glandular tuberculosis does not differ clinically from that of simple hyperplastic enlargement. If, however, the glands remain stationary for a long time and then diminish in size after subsidence of the irritation in the region drained by the afferent lymphatics, the enlargement is probably benign. If, on the other hand, the gland increases in size after the peripheral infection has subsided, and especially if softening occurs, with adhesions to the surrounding tissues, then one would suspect tuberculosis to be present. For instance, if a patient presents him-

self for treatment with enlarged lymphatic glands in the upper triangle of the neck and considerable hypertrophy of the tonsils exists, one should first of all excise the tonsils. If the glands do not diminish in size in the course of a few weeks it is reasonable to suspect tuberculous inflammation of the glands, provided no other etiological factor can be found, and I believe we are justified in excising them. In spite of the benign character of hyperplastic glands, they should always be treated, especially in children of tuberculous parents and those in contact with tuberculous adults. In cases of this sort the chances of becoming secondarily infected with tuberculosis are great. In many of these cases we are justified, when we cannot positively determine whether they are tubercular or not, in excision.

A. Jacobi, New York: Only the minority of swollen lymphatic bodies in small children are tubercular, only a minority. The majority of swollen glands we notice in infancy and early childhood are those that are the results of the superficial irritation of the mucous membrane in their neighborhood. Glands will swell when there is any irritation of the mucous membrane near them. For that reason you will notice a swelling of the mesenteric glands when a baby has had diarrhea, though it has lasted only two or three days. That is why the diarrhea should not be allowed to go on. It should be checked in order to prevent the hyperplastic changes in the lymphatic bodies. The glands around the neck will swell when there is the slightest irritation of the head from eczema, also under the chin and round the neck in the cases of common nasal catarrh. Little babies who have running noses all the time will all the time have swollen glands; and the way to prevent them, or the way to cure them, is to keep that dirty nose clean. You cannot do that with a handkerchief, nor with a spray, which is very inefficient; you cannot do it with a few drops of salt water which you run into the nose, and which will simply creep along in one narrow channel, and will never effectually clean the cavity. Neither can you use in a small child a fountain syringe. It will not do, except under extraordinary circumstances, to use a syringe of any kind. The only results that I have had, after a number of such applications, is to furnish a new subject for the ear doctors. They are perfectly right when they say that a large majority of their cases of acute or chronic ear diseases are the result of improper nasal treatment. There is only one way to clean the nose, and that is by pouring in a warm saline solution (6:1000) from a cup, such as Whitall Tatum's (children's size), Birmingham's, Dessar's, or any other more or less similar to the flat antique lamp, or to the modern "sick feeder." Pour in a small quantity, a teaspoonful at a time, one every few seconds, just enough for the child either to spit out or swallow. They learn spitting very soon. The whole procedure need not last longer than a few minutes, and will be endured with more or less complacency after a few days' experience. That is the only thing that is efficacious, and the only thing that is safe; and it should be done in more cases than has been done heretofore in common practice. Whenever a baby has a tendency to catarrh, the nose should be washed out once or twice a

day with a warm saline injection from a cup. Not only is that a preventive, but it is a cure. Whenever you find a number of glands swollen, that are a week, or very frequently two or three months old, the only thing you have to do is to keep on irrigating that nose, not necessarily with an antiseptic, but simply keep it clean with a warm saline solution. Unless you do that, those glands will become hyperplastic, and then nothing will relieve the patient, in most cases, except the knife. Iodides may do some good, as long as the glandular bodies are not perfectly solidified; but when hyperplasia is complete, they are nearly powerless. These glands are not tuberculous from the beginning, but in the course of time they may become so, simply because tuberculosis bacilli may be in the nose of anybody, and will be swept into the circulation, when the surface of the mucous membrane is sore, that means denuded of the epithelial cover. Fortunately this latter condition is a condition *sine qua non*, for no class of bacilli, though ever so numerous, will enter the circulation unless there is a defective surface. Keep the mucous membranes of little children and of adults perfectly clean and sound. If all good doctors will make it a rule to keep the noses of little children clean, and irrigate them from time to time, they will prevent a good many cases of tuberculosis, diphtheria and rheumatism. I have followed this rule this half century in families wherever there has been a good deal of catarrh.

Now then, what do you do when you irrigate the nose? You not only keep it clean, but the throat, too. If you have any disease of the throat, the best and actually easy way of getting at the throat is through the nose by gentle irrigation. I repeat,—gentle irrigation. Only in cases of solid membranous obstructions of the nares, which are fortunately not so frequent at present as they were thirty and forty years ago, force must be used. And again I say,—get at the throat, at the tonsils, at the pharynx by way of the nares. The best way to kill a baby, with diphtheria, is to force the mouth open and swab and brush and burn, and make them struggle, and exhaust them, and stop suddenly the movements of the infected and deteriorated heart muscle.

I ask permission to add a few remarks on the several last-named organs. The role of the tonsils as the principal entrance of invading microbes is generally exaggerated. (I refer to Archives of Pediatrics, July and August, 1906, where I discussed the subject mainly from an anatomical standpoint.) At all events, the anatomy of the tonsils is greatly changed with advancing years. Normally they retract in the adult, and are less exposed to injuries and to the attacks of bacteria. When subject to inflammation, the result is the new formation of connective tissue and hardening of the body, or after abscesses destroy a part of its substance. In this way, whatever danger from bacterial invasion there was in infancy and childhood is diminished or obviated in later periods of life, for blood—and lymph—vessels are compressed and undergo atrophy. But what are the facts under normal conditions? The tonsil is a conglomerate of from ten to twenty (according to Hadenpyl from eight to fifteen) follicular glands. It is perforated by crypts which unite in two or three long and deep pockets. The external ad-

herent surface is covered by a fibrous capsule which sometimes sends out strings of fibrous tissue along the blood vessels to such an extent as to keep them open and make them bleed copiously when cut. What I wish mostly to emphasize this moment is the presence of the fibrous capsule separating the tonsil from the adjoining, outlying tissue. Both the blood and lymph vessel communication between the tonsil and the body is hampered. Now, what I have observed these fifty years, and what must have attracted your attention, is this: When you have a bacillary or other membrane in the throat which is confined to the surface of the tonsil, there is very little or no glandular swelling in the neighborhood. This is a clinical fact which I have observed and carefully noted since 1858, when diphtheria and all sorts of throat diseases conquered the State of New York, never losing its hold since. But as soon as the membrane extends beyond the tonsil, or begins in the pharynx or nose first, the glandular swelling is marked at once. Indeed, when you cannot see the membrane, and find much glandular swelling below the angle of the lower jaw, you may safely make the diagnosis of membrane in the post-nasal cavity at once, and soon you will see it. This is the class of nasal diphtheria which Roger, of Paris, deemed absolutely fatal until in 1860, and again in 1874, we taught them the benefit of frequent irrigation of the nose, in nasal diphtheria.

Anatomical researches have since demonstrated the explanation of these clinical facts. An invasion of the normal tonsil by bacteria is possible for the surface epithelium is not a uniform cover, and a catarrh caused by anything adds to this possibility. Near the tonsil the lymph current of the throat is less active than at a slight distance from the tonsil. According to Labbé, there are no lymphatic sinuses round the tonsil, near the surrounding fibrous capsule. There is a system of closed canals in the follicles, which do not open into the connective tissue. Thus bacteria which enter are even apt to be expelled again into the open pharynx. There appears to be, however, a slight lymph communication between the tonsil and the body through a single gland situated near and below the crossing of the sterno-cleido-mastoid and digastric muscles. But the connection between the rest of the pharynx and the body is very direct and intimate, "Waldeyer's ring" of the lymphatics and the legion of others in the posterior nares,—they are more culpable than the tonsils. Singular it is that the whole lymph apparatus of those parts has been overlooked to credit the tonsil alone with exclusive importance. In Grover's book of last year on the tonsils you may find the tonsil and the whole neighborhood called by the identical name of "tonsil," though now and then he speaks directly of the dangerousness connected with the rest of the lymphatics.

The distinction I make is of great practical importance. Both prevention and cure have to consider not only the tonsils, but also, indeed far more than them, the whole lymph system of the neighboring surface.

Charles H. Mayo, Rochester, Minn.: The symposium discussion as presented has covered practically all the ground, and there remains but little

to be added except in confirmation of what has already been told you.

The physiology of the lymphatic system is something to which we pay very little attention, unless we find it is failing to do its work or is overwhelmed with disease.

All told, there are probably six or seven hundred glands in the entire human body. We should consider all glands as individual organs, the glands in one group being one body. I have taken out and been able to separate 115 glands from one side of the neck, and I think it is possible to find more glands in disease than any one can find by any ingenious method yet devised of injecting the lymph system after death.

As to the question of source of infection, I believe that the tonsil is a more serious menace than the appendix, and that it is this organ with adjacent lymphoid tissue which is the cause of practically all the infectious diseases of childhood. They are the cause to a considerable extent of rheumatism and afford an entrance to tuberculosis. The tonsil is nothing but a gland and cannot be distinguished from the other glands in the neck unless examined with a microscope. A tonsil does not always need to be infected by tuberculosis to allow bacilli or other germs to pass through it.

I believe it is unnecessary in the majority of cases to operate on children under ten years of age, as they are often protected by a mixed infection, developing increased resistance.

As to the amount of operating that can safely be performed on the neck—practically all of the tissues on one side of the neck can be removed with impunity except the carotid artery. That has a multitude of duties, and its removal involves risks that are unavoidable. The pneumogastric, on one side, also one phrenic nerve, can be removed with but slight ill effect; however, their removal is rarely necessary.

The spinal accessory nerve should be saved. Its destruction would be a serious accident to a girl, say, of the age of fourteen. There would be an irregular lateral development, and not only the primary droop of the shoulder, but, should you see the patient a year later, you would observe the lateral curvature of the spine that comes from lack of muscular development.

As I said before, the symposium discussion has been most complete. I am very glad to corroborate all that Dr. Caruthers has said.

F. F. Lawrence: The statement of our illustrious guest from New York "that a great majority of enlarged glands in the neck (of the child) are not tubercular," is most unfortunate. We would probably all agree with him if he would say (what I believe he had in mind to say) that the majority of acute enlargements of lymphatics in children were not tubercular. There is, however, a great difference between acute and chronic lymphatic enlargements. What other disease aside from syphilis gives rise to lymph nodes in the child? If we reflect, we can arrive at but one conclusion, and that will be that by far the greater number of chronic lymphatic enlargements in the child are tubercular, while the acute enlargements are usually not tubercular, but we must not forget that even these acute lymphatic enlargements are sometimes tubercular.

And in connection with this there is one other thought. How do we know, in what way can we decide whether a tuberculosis, pulmonary or general, of adult life be not in reality the result of neglected or medically treated glandular tuberculosis in childhood? How can we decide, or can we decide, that some of these acute and sub-acute lymphatic enlargements in children are not tubercular, and that when we deny surgical treatment in favor of hygiene, medication and careful diet, we simply enable nature to encyst or encapsulate the germs of tuberculosis, which later become liberated and cause a general tubercular affection?

When it comes to the question of deciding whether we shall leave an enlarged lymphatic gland in the neck or elsewhere because we are unable to positively determine that it is tubercular, or whether we had better remove the mass, I am strongly inclined to believe the doubt should be resolved in favor of removal rather than leaving it, with the great possibility of bringing upon the patient in the future a general tubercular infection.

I believe it to be a mistake to divide this subject into medical and surgical treatment. There can be no such thing in tuberculosis as either to the exclusion of the other—that is, if each involve a distinct principle. For instance, drainage is an essential in every infection—that is, mechanical or surgical. The medicine which will keep disease stationary or re-enforce one against it or enable him to resist the onslaught of infection will not and cannot remove the infection itself; there must be a judicious compromise and wise application of both medical and surgical treatment if we are to cure the tuberculous victim. We must be careful not to do what will militate against the well-being of the patient in the future. Too often the surgeon, after the operation, has comparatively little opportunity for continued observation and must entrust the details and minutia of diet, hygiene and medication to the general practitioner. But the two must work together.

I am very glad, indeed, that Dr. Mayo has emphasized the importance of the tonsils. I do not believe the emphasis can be made too strong. The greatest wonder is that more babies and young children do not fall victims to tuberculosis through tonsillar infection. When we remember that our children are constantly victims of that most pernicious custom, in which every man, woman and child thinks he has the right to "kiss the baby's ruby lips," whether that man, woman or child has tuberculosis or not. The mother very often, though tubercular, thinks it proper to masticate food in her mouth and then feed it to her child and in this way produce a direct infection. To prevent such practice is one of the wisest suggestions Dr. Mayo has made.

Then, in all chronically enlarged lymphatics in the child in which there is no specific history, removal should be the practice of election.

L. G. Bowers, Dayton: I just wish to call attention to one point in the treatment of tubercular glands of the neck, and that is from a cosmetic standpoint, in applying the bandage after an incision has been made and sewed up. A deformity is likely to be caused by the contraction of the scar, due to a defective position of the

head while bandaging the wound. That is, the patient carries his head to one side and has a cord-like line at the site of the incision in the skin when he tries to balance his head with the body. This can be avoided in two or three ways. One of these ways is to put an adhesive strap around the shoulder and strap it down to the chest before putting on the dressing. Also apply the bandage so that it will incline the head and neck a little to the opposite side from the wound.

I was very glad to hear Dr. Mayo give warning of the injury which may be done to patients by doctors promiscuously opening abscesses in the parotid region without due consideration of the injury many times done by the cutting of the spinal accessory nerve. The abscesses are usually in children, and the cutting of the nerve at this period of life is often followed by lateral curvature.

H. J. Whitacre, Cincinnati: Unfortunately, I have not heard the entire discussion of this subject and can only recapitulate points of my demonstration. I attempted to show in my presentation (1) the great frequency of the infection, (2) the tendency to a rapid wide-spreading involvement of all the glands in a given anatomic area. This second fact gives us our correct basis for operative treatment and imposes upon us the necessity for a complete lymphatic dissection of the region.

I have uniformly followed this plan of operative treatment with very great satisfaction. I have so frequently seen recurrences after the incomplete operation that this point would seem to be the most important fact in the pathology of this disease.

I certainly would agree with the advice that has been given regarding conservative, hygienic and dietetic treatment of those cases who can command these most favorable conditions. I have found, however, that the majority of my cases come from the less fortunate class who cannot afford this luxury and feel that the majority of cases should be treated by the radical operation.

I feel certain that this operation has been well done when at the completion of the dissection all muscle and nerve structures are plainly seen and undivided in the bottom of the wound.

I have removed the vein in a few cases without apparent disadvantage to the patient.

J. H. Jacobson, Toledo: I merely wish to say that, although my paper was confined simply to a discussion of the radical operation, I believe, as Dr. Crile does, that there is occasionally a case where only a partial operation should be performed; but this, perhaps, should not be generally adopted, and when the operation is undertaken, the radical, complete operation as described should be performed.

J. P. Sawyer, Cleveland: There is little to say further from my point of view in this discussion. The great value of surgical procedures must be fully recognized and positively insisted upon in suitable cases of the group under discussion. But operation is always to be a part only of the whole plan, and operation is an incident in the treatment of tuberculosis, whose management is essentially of medical rather than purely surgical control.

With reference to the remarks of Dr. Jacobi, I wish positively to speak of the gratification and pleasure of hearing directly expressed by him the views he has so successfully impressed upon the profession. I had thought to cover the point in my reference to "the other glandular structures not directly included in the adenoids and tonsils," but am glad of the emphasis Dr. Jacobi has put upon it. Pathologists and anatomists will speak of Waldeyer's ring, but clinicians will think of Jacobi in connection with these structures.

Tannic acid is useful for removing the odor of iodoform.

Rectal encmata are frequently expelled because the air which is introduced excites peristalsis.

The belt method of treating whooping cough is of therapeutic value. It controls the vomiting.

The local use of a saturated solution of Epsom salts (one pound to two quarts of water) will relieve the pain of burns. The injured member can be immersed and then dressed with the bandages saturated with the solution.

The position treatment for fractures of the forearm is important. For fractures above the insertion of the pronator radii teres the forearm should be dressed in complete supination; in a position midway between pronation and supination for fractures at the middle of the forearm, and in complete pronation for breaks at the lower end of either the radius or ulna.—Fletcher.

Medico-Legal.—Proof of a bad result or a mishap—i. e., deformity—in the treatment of a fracture is, *per se*, no evidence of neglect or lack of skill. The jury cannot draw its conclusions of unskillfulness from proof of what the result of treatment is, but that the treatment was improper must be shown by evidence.—Thompson.

It is laid down as a general rule that when a patient employs or receives the services of a physician he is bound to pay a reasonable compensation. The fact that a professional man does not succeed in accomplishing that for which he is employed cannot affect his right to recover for services rendered, unless actual want of skill or breach of his legal contract is specifically shown.—Thompson.

The mere calling of a physician (by a third party) or requesting him to call upon a patient will not make one liable to such physician for his fee in the particular case.

CHRONIC PARTIAL INTESTINAL OBSTRUCTION DUE TO ADENO-CARCINOMA OF THE CECUM—REPORT OF CASE WITH AUTOPSY FINDINGS.

C. D. SLAGLE, M. D.,
Centerville, Ohio.

Carcinoma of the cecum as well as of the large bowel in general is a disease occurring more frequently than is generally supposed. In a great many patients in or past the meridian of life who die of obstruction of the intestines, where the cause is obscure, it may be presumed that malignancy plays an important role in the

ing in the large bowel may be of benign origin and later change to that of a more malignant nature as is evidenced by the case herewith reported.

It is true that during the development of these growths the digestive system is at intervals greatly disturbed, but the patient is often seemingly so much benefited by treatment that we are led astray, thereby losing valuable time, when if an exploratory incision were made thus early and actual conditions seen, a great many lives, no doubt, would be saved.

In such chronic obstructive cases we see an attack of partial obstruction and then an interval of relief alternating till nature has produced



FIG. 1. Carcinoma of Cecum—External Aspect.

mortality. The onset is so gradual and so frequently unaccompanied with much pain that the disease may gain such a foothold that upon seeing the actual pathological condition one is astounded at what nature may do and yet cause so little inconvenience to the patient. Often it is only when the neoplasm has produced nearly complete occlusion either by pressure or constriction that one is awakened to a realization of the fact that some malignancy may be the real cause. I believe that in their incipency, a great many of these growths occur-

too much of a growth and complete obstruction ensues. One of the most striking features or symptoms of this condition is this alternate constipation or rather obstipation, and a suddenly developing severe diarrhoea, which is nothing more or less than nature trying to relieve the over-congested and greatly distended intestinal tract. Occasionally vomiting occurs and in the later stages is a prominent symptom of the obstructive process. I cannot better illustrate the symptoms than by citing the following case:

Mrs. A. K., married, a nullipara, aged 54 years, American, housewife by occupation.

Family History—Father died of disease of the heart, aged 64. Mother died of carcinoma of the breast at age of 75. One sister had a uterine growth removed several years ago, but is enjoying good health today. One brother died of locomotor ataxia, aged 49 years.

Personal History—The patient has been married for 14 years; never became pregnant, menopause passed five years ago. No history of any venereal disease, rheumatism or neuralgia; never used any intoxicants and has always worked hard early and late.

About five years ago she began to notice that she had a great amount of intestinal flatus with eructations; constipation would alternate with a diarrhoea, lasting for a few days and cease or be corrected by medication. She had practically no pain, but noticed gurgling and "rolling of bowels" due to the peristaltic wave of the small intestines. No intestinal hemorrhage. In the late summer of 1904 she had an attack of constipation or rather obstipation followed by a diarrhoea, in which she suffered a great amount of pain. Abdominal distention was great and finally fecal vomiting developed. Medical attention was given her for four or five weeks and apparently she made a good recovery and remained well to present attack with the exception of alternating constipation and diarrhoea, some abdominal distention and more or less gurgling. No pain associated with this condition, nor intestinal hemorrhage.

Present History—Patient came under my care March 18, 1907. She had been ill for a week or ten days, suffering a great deal of pain over entire abdomen. Examination revealed temperature 99½, pulse 112, no cough, tongue highly coated; she vomited all nourishment, belched great quantities of gas and had had no intestinal action for four days. Abdomen enlarged from gaseous distension and fecal accumulations to the size of an eight months' pregnancy, and very sensitive to deep pressure in the right iliac region. Gurgling very marked. The peristaltic waves of the small intestines were beautifully displayed in action and outline. The waves could be followed from high up the intestinal tract, down to the seat of obstruction, recurring in intervals of five or ten minutes. The abdomen being so tremendously distended, further investigation availed nothing. Examination of uterus and appendages, as far as could be carried out proved negative; rectal examination also nil. No intestinal hemorrhage.

Urinary Analysis—Amt. 1200 c. c., sp. gr. 1026, acid, amber color, a very high urinous odor. No albumin, sugar, bile or blood. Urea 1.5 per cent. No indican, no casts, blood or pus. Urates and few phosphatic crystals with some debris present only. Analysis of stomach contents showed a large amount of fecal matter and food remnants with mucus, pieces of rolled vegetable tissue similar to the skin of pear or apple. No free acid present.

It will be noted that this patient had taken practically no food for two weeks, yet she vomited, and we washed from the stomach remnants of food, such as vegetable tissue, skin of pear, a few apple seeds and hulls of popcorn, which were evidently brought up by reverse intestinal peristalsis.

Treatment consisted in relieving the pain, which was successfully accomplished by a hypodermic injection of one-half grain codeine sulphate. Cathartics only served to increase the intestinal peristalsis and pain without any appreciable result. Gastric lavage and the use of the long colon tube gave better results; the stomach irritability soon improved and very fair results were obtained from the bowel. These procedures were kept up for a week or so with no perceptible gain in the patient's general condition. An operation was finally decided upon but absolutely refused on the part of the patient. The gastric lavage and colon flushing were kept up until one week previous to death, when the lavage was discontinued, owing to exhaustion of patient and development of a diffuse generalized peritonitis due, it was thought at the time, to a perforation or rupture of the intestines. This condition continued with marked increase of abdominal rigidity and pain until death finally ended the scene, May 13, 1907. Of the toxemia one would naturally expect to find in a marked degree in this patient due from retention of fecal matter, it can truly be said that none existed, not even a headache and none appeared until the development of the peritoneal symptoms, when they were present in marked contrast to the previous state.

The Autopsy—(Held six hours after death.) Body that of a female, aged about 54 years, five feet, seven inches in height. Post mortem rigidity well marked; skin has a peculiar cachexia; no cicatrices or marks on the body, and emaciation not marked. Abdomen distended but slightly; over its lower portion numerous small petechiae appeared, which were found upon the extremities as well, especially on the backs of the hands. On opening the abdomen,

a linear incision being made from the ensiform cartilage to the symphysis pubis and a transverse one extending from either side through the umbilicus, the adipose tissue encountered was well marked. On opening the peritoneal cavity a large quantity of muddy colored, offensive purulent liquid escaped. The greater omentum was atrophied and retracted. The intestines were found to be ecchymotic and gangrenous in a large number of places and would tear on the slightest attempt to separate the coils which were very densely adherent to each other.

through the growth smaller than a goose quill. (See Fig. 2.) As will be seen in Figs. 2 and 3, the walls of the ileum are very much hypertrophied, the result of the long continued efforts of nature to force through the very small opening the flatus and fecal contents of the bowel. There were no enlarged lymphatic glands or other points of pathologic interest.

I am indebted to Dr. D. B. Conklin, of Dayton, Ohio, for the following microscopical examination of the growth:

"Report of examination of specimen removed from intestinal lumen and causing obstruction:

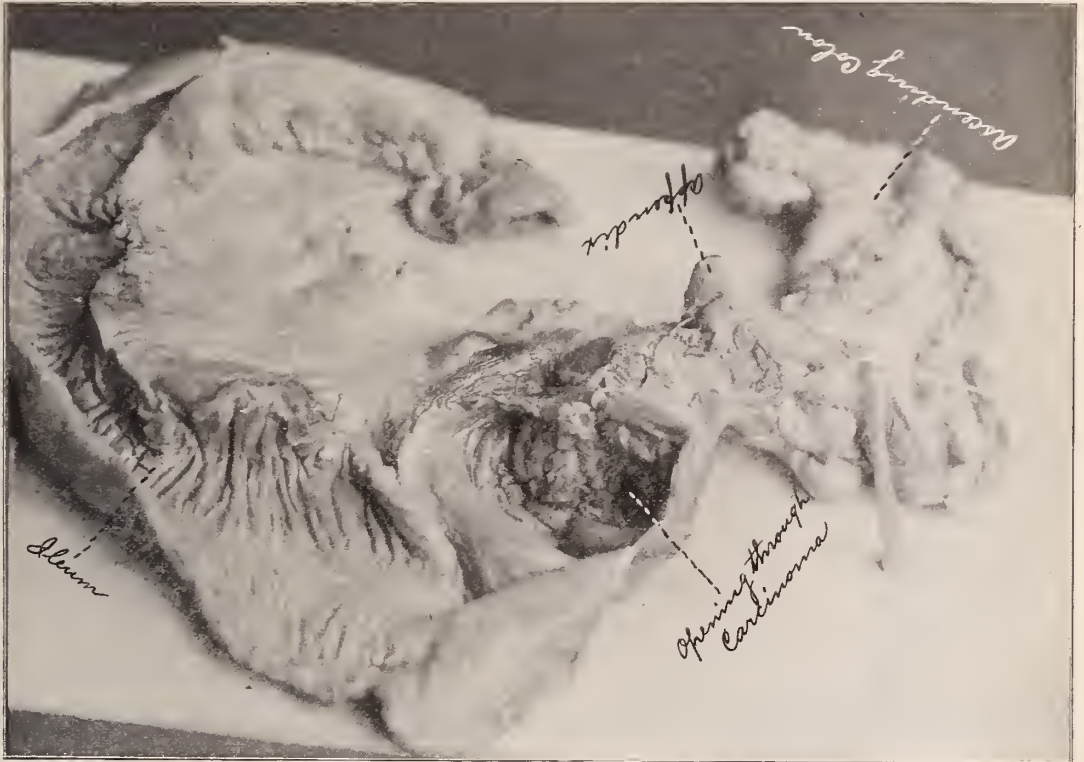


FIG. II. Carcinoma of Cecum—The ileum and cecum opened

In the right iliac fossa was found a hard nodular mass occupying the lumen of the cecum. On its outer or peritoneal surface was a small gangrenous opening (see Fig. 1) through which exuded liquid fecal matter, evidently the cause of the diffuse purulent peritonitis. Upon its removal and incision into the ileum longitudinally through the cecum and the growth into the colon, it was found that the neoplasm was of the annular form (see Figs. 2 and 3) and located near the edge of the ileo-caecal valve about 3.5 cm. in diameter, with the opening

Specimen firm in consistency and 4 cm. diameter, and on cut surface shows a cauliflower-like arrangement. A portion of tumor was sectioned and stained with haematoxylin and eosin, section including a portion of the intestinal wall. Upon microscopic examination, the growth was seen to be an adeno-carcinoma in the transitional stage. It originated in the submucous coat of the intestine and extended out into the lumen. This part of the growth was purely adenomatous in character. In places where it had extended toward the peri-

toneal coat of the intestine the transition from adenoma to adeno-carcinoma was beautifully shown. In places in the muscular coat the adenomatous arrangement was seen, while in other nests of cancer cells appeared and wandering cancer cells infiltrating the muscular layers and causing absorption of muscle cells. In a short time the growth would have undoubtedly assumed a pure carcinomatous type."

These conditions are essentially surgical and in all such growths early operation is the desideratum. It is remarkable what some of these old chronic cases of intestinal disease due to obstruction partialis will stand under surgical procedures. It seems that the long over-distended gut acquires a more or less degree of immunity or resistive power to bacterial infection or toxemias, which greatly aids in recoveries from early operations.

The symptomatology of these growths of the large intestine, in most cases, is so obscure that we welcome any light that may be thrown upon the subject. Frequently the diagnosis will be that of some digestive disturbance, as an indigestion, possibly a biliary colic or a lighting up of an old chronic appendicitis; medication is directed to the supposed trouble and perhaps the patient improves, but valuable time is lost. It is a well known fact that in early diagnosis rests the most favorable prognosis, for without operation they tend more and more to complete occlusion of the lumen of the bowel (see Fig. 2), with perhaps perforation or a gangrenous condition developing, with a general peritonitis and death as the final result.

In the above case we have a patient whose history and symptoms lead us back possibly five years, when she had symptoms of abdominal distension, vague pains in the intestines, borborygmus or gurgling and alternating diarrhoea with constipation. One attack would occur and pass, perhaps without any medical attention, to be followed by a period of rest for a greater or less interval of time. During these intervals she enjoyed apparently good health, until late summer of 1904, when an attack of acute partial obstruction developed and she was ill for four or five weeks and made seemingly a fairly good recovery. There is no question in the mind of the writer that the growth was at this time present and that an operation at this juncture would certainly have yielded beautiful results. Permit me, right here, to advocate the exploratory incision in these vague abdominal disturbances, in which the diagnosis is not clear or where there may be a suspicion of malignancy. Under the use of the

aseptic scalpel, the mortality rate being practically nil, much information may be gained for the patient's good.

In looking over the literature of this particular affection, carcinoma of the cecum, one is struck by the infrequency of its occurrence. While I do not think it is a very rare affection, although it seems to be rarely reported, I really believe it occurs more frequently than is generally supposed. Langemak (*Deutsch. Zeitschrift. f. chir.*, Jan., 1902, *Progressive Medicine*, June, 1902) "submits the following figures as to the relative frequency of carcinoma of cecum. A. Zemmann, 7.02 per cent., Maydl, 9 per cent., Nothnagel, 5.07 per cent., Leichtenstern, 4.1 per cent., Rupp, 7.07 per cent., Klein, 10.1 per cent., of all cases of intestinal cancer," a general average 7.06 per cent. not so infrequent after all.

Dr. J. C. Reeve, Dayton, O., (*American Journal of Surgery*, Nov., 1902) reports a case (No. 5) of a malignant growth obstructing colon at its union with the cecum. Whole cecum with appendix was excised, but patient died of exhaustion two weeks later.

Dr. A. B. Knowlton, Columbia, S. C., (*Journal American Med. Ass.*, page 1611, Vol. XLVI) reports a case of tumor of the cecum and ascending colon in which he did four operations finally curing his patient. It is to be regretted that no microscopical examination was made of this growth, but the author thought it a fibro-lipoma and benign. Dr. J. B. Deaver, of Philadelphia, in "A year's experience in intestinal surgery (*Am. Journal of the Medical Sciences*, Vol. CXXXII, No. 6) cites four cases of carcinoma of the cecum with three recoveries and one death. He urges the early recognition of intestinal cancer as "one of the desiderata of surgery."

Bovis (*Revue de Chirurgie*, June, 1900. *Prog. Med.*, June, 1901) in a paper on "Cancer of Large Intestine," reporting 426 cases surgically treated since the antiseptic era began, gives 58 cases of a neoplasm found in large intestine exclusive of rectum and anus. Of these 58 cases he reports five as occurring in the ileocecal valve and fifteen in the cecum, and further states that 11.9 per cent. are located in this region. In a series of 61 cases operated on by Kronlein, Korte, Czerny, Billroth-Salzer and Konig, the location of the tumor was thirty times in the cecum. Their average mortality rate being 48.4 (*Prog. Med.*, June, 1901). Hochenegg, of Vienna, (*Interstate Medical Journal*, Aug., 1902, *Prog. Med.*, June, 1903) reports carcinoma of cecum occurring nine times

in a series of 282 cases of intestinal and rectal cancers, or 3.19 per cent.

Cumston and Vander Veer (Annals of Surgery, Jan. and Feb., 1902) on "The Symptomatology, Diagnosis and Treatment of Carcinoma of the Cecum, with a Report of Two Cases," publish the most exhaustive article extant on this special affection. They include a brief resume of all the cases of carcinoma of the cecum reported up to that time, 85 in number, including the two cases of the writers.

Perhaps a brief resume of their two cases may be of interest. Case of Dr. Cumston, fe-

within three weeks began again to have recurrence of the flatulency and pains similar to those for which she had been operated upon. These symptoms of pain occurred spasmodically. About this time a hard mass could be distinctly palpated in the right iliac region. About eight weeks after first operation was performed, laparotomy was done for the removal of the mass. This was found to be an annular carcinoma situated at juncture of the cecum with ascending colon. Removal was found to be impossible owing to the collapsed condition of the patient. An artificial anus

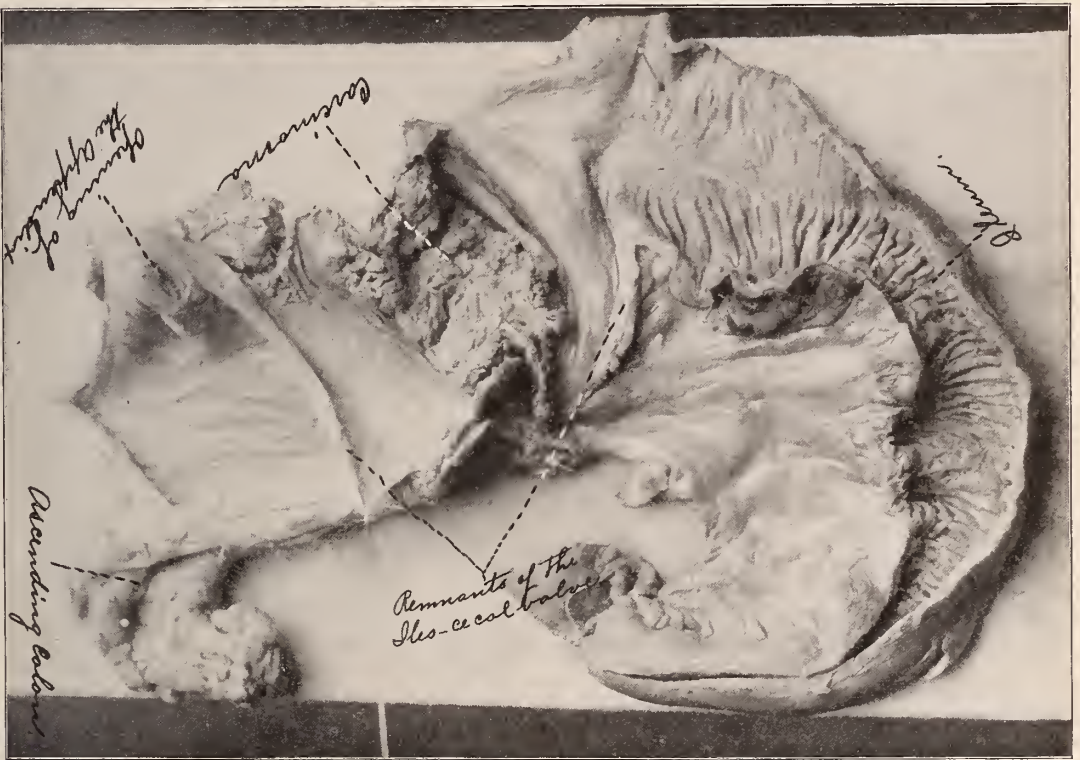


FIG. III. Carcinoma of Cecum—Internal aspect; ileum, cecum and ascending colon opened

male, aged 41. About six years previous to operation this patient fell from her bicycle, the handle of the machine striking her abdomen in the region of the appendix with considerable force, causing soreness for several days. Shortly after the accident she noticed some uneasiness in the lower abdomen with flatulency. This was soon followed by attacks of colicky pains and extreme tenderness and sensitiveness in region of the appendix, with some vomiting and diarrhoea. The appendix was removed and she made apparently a good recovery, but

was made, however, but the patient died twenty hours later.

Case of Dr. Vander Veer. Female, aged 21. Had for six or eight months prior to operation frequent attacks of nausea and vomiting with constipation and pain, with flatulency and eructation of gas. Symptoms of complete obstruction low down presented, pointing to the right inguinal region. An exploratory incision was advised expecting to find the trouble connected with or about the appendix. This latter was removed and the cecum further examined,

revealing carcinoma nearly encircling the same. Resection of the growth with the head of the cecum was done. The patient died four days later. Autopsy revealed no clearly determined cause of death.

In their resume, including the two cases of the writers, it will be seen that the mortality rate is about 40 per cent. There is no doubt that this mortality rate could be lowered, if we operate upon our patients early, as Paul (British Med. Journal, Aug. 15, 1903) says: "To have a fair chance the surgeon should undertake resection before obstruction supervenes."

DISCUSSION.

Dr. Goodhue: I find this case to be an interesting one because it is a type of cases that is frequently presented to the surgeon, and this case is especially interesting to me because I chanced to see a case several weeks prior to her death in consultation with Dr. Slagle. At the time of the consultation the doctor joined with me in using all our persuasive power in trying to obtain consent to an operation, for the diagnosis of obstruction was very manifest, the abdominal distension being very great, even the coils of the intestine being distinguishable through the abdominal walls; and yet as we could not promise relief and cure and the fact that she had had this obstruction two or three years prior with apparently a cure, rendered it impossible for us to obtain the consent of the patient. This case emphasizes and teaches, if it teaches anything, that what seems to be a cure by nature of an obstruction is only apparently so, for this case, although being relieved for three or four years, was never a cure. During all this time there was recurrent constipation and diarrhoea with more or less abdominal disturbances and evidently if at the time of the first obstruction an operation had been done she would have been cured permanently. They evidently at that time thought there was nothing malignant about the case for it had not progressed at the autopsy to such an extent that we could believe malignancy existed at the time of the first obstruction. Even at the second operation we might have hoped at least for temporary relief, which we offered her but she failed to accept it.

Dr. C. D. Slagle: I have nothing further to say except to say that if we hope to benefit our patients in the least by operations we should do them early, otherwise we cannot promise very much. In the figures that are given in the paper you will see that the percentage of cures where early operations are done is considerably in excess of the percentage of those that are undertaken later.

Just so long as the appendix is in a condition in which its lumen is thoroughly drained the organ will not cause any serious trouble, but just in the proportion in which this drainage is interfered with will the danger to the patient increase.—Ochsner.

A CONSIDERATION OF THE ETIOLOGY OF THE PSYCHO-NEUROSES, COMMONLY CALLED TRAUMATIC NEURASTHENIA AND TRAUMATIC HYSTERIA.

BY CHARLES J. ALDRICH, M. D.,
Cleveland.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

A neurosis is a functional disorder of the nervous system, and not necessarily dependent on any discoverable lesion. A psychosis is a disorder of the mind. With this understanding of the radical differences existing between a neurosis and a psychosis we can best approach the consideration of the psycho-neuroses arising from trauma.

It had been my intention to discuss briefly the etiology and diagnosis of those disturbances of the psychic and neural systems that arise from trauma. When it was attempted, I found the subject was too large. Therefore I have confined myself to a brief discussion of the etiology alone.

Your time is too valuable to waste with a history of the origin of our present conception of the relations of traumatism to functional nervous and psychic disturbance. I cannot make myself plain however, without briefly tracing the growth of our ideas as to their etiology.

Our first notions were largely founded upon original theory of concussion of the nervous tissue, as propounded by Errichson. Errichson was a surgeon, and it remained for a trained neurologist like Dana, in 1884, in the first complete resumé of this class of cases, to show that Errichson's conception of spinal concussion was misleading and often incorrect, and the origin of the symptoms that Errichson and other men had described were not specifically organic, but were those of traumatic neurasthenia, hysteria and resulting hypochondriasis.

Influenced by the work of other observers, Dana perhaps associated the symptoms which we now recognize as belonging to the neuroses and psychoses too prominently with the signs of injury to the vertebral bones, muscles, ligaments and spinal nerves. In other words, while he justly concluded that the majority of the symptoms were distinctly psychic, he gave too much weight to the physical side of the question.

Unfortunately the quite sane and safe view that Dana took was not effective in preventing the pendulum swinging too far, as is evidenced by the extreme views of Oppenheim, who, in 1888, wrote a book that was widely read, in which he

attempted to prove that accident and injury, "through sudden vibration or reflex ways," produces a special form of nervous affection, which he proposed to call "the traumatic neurosis."

In 1893 the question was thoroughly sifted at the Twelfth International Medical Congress, where the general belief was voiced, "that even after slight injuries general functional disorders not infrequently develop. These neuroses are not disease pictures of any particular variety, but all may be classified under the name of other well recognized neuroses, of which the most important are hysteria, neurasthenia, hypochondriasis and their mixtures."

If they had classed hysteria, neurasthenia and hypochondriasis as psychoses and psycho-neuroses, their descriptive definition would answer the requirements of our knowledge of today.

The following description of the symptoms of the traumatic psycho-neuroses are recognized by all careful observers:

The patient may have headache and vertigo, diminished power of application, loss of power of mental attention; he is depressed and irritable and may be hypochondriacal. Also he has a diminished power of physical, mental and psychical resistance. He suffers from fears and trepidations; his fears may be real phobias. He has a marked disturbance of the circulatory apparatus; the hands and feet may be cold and livid; the heart is irritable and oftentimes increased in rate twenty or thirty beats to the minute. The least little bit of physical exercise may raise the circulation to as high as 120 to 170 beats to the minute. He is weak and languid. He may have some visual disturbance, oftentimes a contracted field of vision and alteration of the color fields. Commonly there is some tremor of the hands or tongue, and there may be some inco-ordination. He may suffer from faint feelings and vertiginous attacks. He may suffer from anesthesia and hyperesthesia. These areas of altered sensation are the irregular areas characteristic of hysteria, or he may suffer from numbness and prickling, particularly in the extremities.

His movements are slow and weak. His tendon reflexes are commonly exaggerated, and there may be some lack of control of the bladder.

He commonly complains of pain and stiffness in the back; of tender points that shift on different examinations. Pressure over these tender spots commonly show that it is a tenderness *vera*, which may be determined by an increase of the heart's action or dilatation of the pupils when pressure is made over the points complained of.

Organ consciousness is often a marked and dis-

tressing symptom. Strange sensations in the thoracic, abdominal and pelvic viscera are common. These sensations are described in an ever varying and fantastic manner. They declare that their organs are loose and shift about, that they can feel and hear water or blood trickling and running about in their internal economy; they insist that their brain no longer fits the skull cavity, but moves and shakes about; that it itches or creeps, or purrs like a cat. The sensations referred to the sexual apparatus are grotesque and impossible. Indeed, the medley of sensations that prove so distressing and alarming to the sufferer cannot be accounted for by physical or physiological science.

Now you see that this description takes in much more than an affection of the nervous system. Indeed, it is plain that the great substrata of these symptoms must be the psychic system and not the nervous system. And, indeed, the *psyche* so completely dominates the clinical picture that we should no longer use the term traumatic neurosis.

Few of these affections are neuroses at all, except as the nervous manifestations are the result of psychic alteration. They should be called psycho-neuroses. Indeed, the more one observes these types and studies their admixtures the more the predominance of the morbid *psyche* becomes apparent. And he feels more like calling them psychoses.

Perhaps the error of speaking of these cases as neuroses arises from the mistaken idea that hysteria and neurasthenia are neuroses. The psychic element predominates in both of these diseases. The neural element is small and only manifested in the transmission of the morbid psychology to the outside world by the nervous mechanism of the body. Granting, however, that there is a neural element, it is certainly secondary and should be placed second in the nomenclature. Therefore I use the compound term, psycho-neurosis.

There is no difference between the idiopathic and traumatic forms of these affections, except in the intensity and greater tendency to admixture of types in the cases arising from trauma. The more one studies his records of these affections he recognizes that they are but shadowy imitations of the great major psychoses, especially the delusional types of insanity, which are engrafted upon a degenerate and imperfectly developed brain.

It has been conclusively shown that none of these cases present symptoms or signs that cannot be fully explained either by organic injury of the

body, such as contusions, hemorrhages, inflammations and sequential degenerative affections, or functional nervous and psychic disturbances, such as neurasthenia, cerebrasthenia, psychasthenia, hysteria and hypochondriasis and their multitude of mixtures.

Since this paper is dealing entirely with the nervous and psychic symptoms resulting from traumatism, we will not consider any organic changes, except as they operate upon the patient in aiding in the production of psycho-neuroses.

What do I mean by trauma? I mean injury of the body or the psyche. Physical shock is due to physical injury to the body; psychic shock is due to psychic insult, which may afford degrees severe enough even to cause death. It would be like carrying coals to Newcastle or peddling owls in Athens for me to take up in detail and describe the symptoms of neurasthenia, hysteria and hypochondriasis and the mixed clinical picture which their associated symptoms depict. I shall not do it.

CEREBRASTHENIA.

Following a head injury and in which, except immediately following the injury, there are no signs of cerebral lesion, there may supervene a condition of nervous ill health. This has been very comprehensively named traumatic cerebrasthenia.

The chief symptoms of this condition are irritability, change in character, loss of power of attention, disordered sleep, ease of fatigue, headache, dizziness and intolerance to alcohol. These patients, when they do not complain of headache, often complain of odd and peculiar sensations in the head. Sometimes it is a feeling of numbness; sometimes it is an itchy, tingling feeling. Most of these cases, when carefully analyzed, do not show actual pain, but the sufferers mistake a disordered sensation for pain. When pain does exist, it is usually dull, with the neurasthenic constancy.

If the patient suffers from focal pain, it is likely to be paroxysmal and radiate from its focus in such manner as to suggest a localized disease of the brain. In order to be positive that we are dealing with a functional affair, bone disease, exostosis and evidence of meningeal adhesion should be excluded.

Dizziness is usually without nausea and is occasionally accompanied by fainting. These attacks are usually paroxysmal and quite liable to occur under stress of excitement or strain. It is often intensified or brought on by bending over. These attacks are sometimes so extreme as to be mistaken for epilepsy, and indeed many of them so

interfere with the power of co-ordination and balancing as to prevent work.

Change of character and irritability may be marked. The patient may become quarrelsome and pugnacious, or he may become moody and excentric and irascible. Sleep is commonly poor and oftentimes disturbed by terrifying dreams of accidents. The powers of application and both psychic and mental endurance are lessened. The patient finds his former labors exhausting or impossible. His powers of concentration are usually weak, so weak that he has to force himself to work, and there is distinct loss of will, a true aboulia. As a rule, memory is not affected, but an occasional exception will be forgetful and inattentive and sometimes become careless in his personal appearance. As would be expected, their arithmetical powers are very greatly interfered with in cases where the power of attention is seriously disturbed, and they make errors in calculations. Intolerance to alcohol is common. Intoxication occurs more easily than before, and the former temperate man becomes an alcoholic.

I have taken some of your time to describe cerebrasthenia, well aware that all of you are acquainted with it and the effects of it, but it has only been within the last two years that it has appealed to me as the rational explanation of the late symptoms of a number of cases that have suffered head injuries and concussion of the brain. How wise Hippocrates was! He said, "No injury of the head should be despised."

It is safely said that we are living in an age of accidents, and, while accidents on the railways stand in the most conspicuous relation to the psycho-neuroses, yet these disorders of the nervous and psychic system may follow any accident.

Accidents from electric currents, falling of elevators, theater catastrophies and the thousands of mangling machines of our countless machine shops are of common occurrence. Indeed, the great number of mechanical appliances and labor saving devices afford such diverse opportunities for injury there is scarcely a limit to the variety of accidents that are daily reported by the press.

The press itself I believe to be the greatest cause of the latent psychic condition that underlies these affections. And this latency is a product of our hurrying, reckless age.

It is impossible for anyone to read the newspapers—and nowadays everybody reads the newspapers—without starting at such headlines as, "Fearful Catastrophy; Great Number Killed and Injured in Railway Accident," or, "Two Lives Crushed Out in an Elevator Accident," or, "Another Man Killed by a Speeding Automobile," or,

"Lineman Electrocuted and Falls to the Earth Burned and Dead."

Dana reports a case that is particularly apropos. A man read of such an electrical accident as just described. A few days thereafter, while walking down the street, a dead wire fell and hit him on the head. The blow was not severe, but the man fell unconscious. When he was aroused, he was found to have typical hysterical symptoms. Through the press everybody is apprised of the whole world's catastrophies. Our emotions are continually quivering on their balance by the oftentimes exaggerated and gresome descriptions of these accidents and fatalities.

The telegraph and telephone give to the newspapers and they lay on our doorsteps every morning enough to make every human heart heat a little more rapidly, to cause our emotions to become stimulated, until this cumulative stimulation develops in all of us a latent emotional instability, which is liable to flower after even a trifling accident or some sudden fright. Indeed, it is fright more than physical injury that is the exciting factor in nearly all of these cases.

The fright psychoses are more commonly the result of psychic insult than of bodily hurt. The extent of injury has little to do with the extent of psychic disturbance. Indeed, it has been my observation that where the sufferer has had some real and tangible injury on which to fix his attention, that as he observes nature healing his wounds and knitting his broken bones his psychic cure keeps pace with his healing body until recovery is reached. I believe that this idea will explain why the dark mysteries of abdominal and pelvic surgery are far more liable to be followed by post-operative psychoses than amputations and other severe operations, where the patient may inspect and observe the healing process.

We have only to recall the large number of post-operative affections of the nervous and psychic system with which we are constantly meeting to prove these statements.

Fear is the most powerful emotion. It may even affect organic changes. The tremendous lowering of the physical and psychical organization which may result from accident is illustrated in a number of cases that have been furnished us. It has been shown that people suffering from a slowly developing degenerative disease of the nervous system are made much worse and the progress of their disease greatly accelerated by fright, coupled or uncoupled with physical injury.

The influence of suggestion is so marked in cases of fright psychoses as to cause me to suspect that we have existing a condition that I

have sometimes called a "traumatic brain." I do not mean a traumatized brain, but the brain of one that has been subjected to psychic insult, with or without physical hurt. This kind of a brain seems to be peculiarly amenable to all kinds of suggestion.

Charcot's pupils found that they could give a dagger of lathe into the hands of an hypnotized non-criminal man and he would attack anyone whom he was directed to kill. Should they give him a sharpened dagger of steel, he would not do it. They also found that the hypnotized thief would steal and the honest man would not. So it is with the man that has received a fright. His apprehension is aroused, he believes the worst, and any ill timed suggestion encouraging his abnormal ideas may produce a growth of pathological weeds that the most industrious doctor may spend months eradicating.

Thus you see how important it is that the physician should be most careful not to suggest anything on which the victim may hang his disordered attention. For it is a well recognized law of psychology that *continued attention causes an intensification of sensation in an organ.*

I recall the case of an uneducated foreigner who stood on the back platform of a car while crossing the viaduct in Cleveland. The trolley wire fell down and afforded some very active fireworks for a few minutes. That he was not touched is shown by the fact that he jumped off the car and ran to the sidewalk, very much frightened, with no evidence of burns about him. He walked to the corner of Franklin avenue and Pearl street, where he visited a doctor, who made the unfortunate remark, "It is a wonder you were not paralyzed." He left the doctor's office and walked a couple of blocks, when his legs gave out and he had to be assisted home. When Dr. H. S. Upson and I examined him, he presented a classical example of hysterical paraplegia—stocking anesthesia, distortion of the color and visual fields and all.

My case books would furnish me a dozen cases where suggestion has operated in a like baneful manner.

This brings us up to the question of the ill effects of long and continuous litigation upon these cases. They usually grow worse and in all good honesty take on a number of symptoms and signs which examining physicians have unwisely commented on in their presence. Their disordered attention invests every trifling symptom with dread importance. They come with friends and memoranda to aid them to recall the multitude of symptoms that their diseases attention

perceives and their erethistic apprehension trembles at.

This description, however, in no way differs from the non-litigation cases.

In this connection we may consider the subject of preparedness for these shocks. Hysteria and neurasthenia rarely result in electrical workers, although they very frequently receive severe shocks. They know the nature of the fluid that they are dealing with, its limitations, its possibilities, its dangers.

The railway employe, with the exception of locomotive engineers and railway postal clerks, are less liable than passengers to develop psycho-neuroses. This is unquestionably due to this preparedness. He expects and is facing accidents daily, like a soldier is facing death or wounding on the field of battle. He is in training, as it were, like the ball player, and, like the latter, is less liable to physical injury or to psychic injury as well.

The reason that engineers are more prone to the development of the nervous and psychic symptoms must be ascribed to the unbalancing of their nerves and psychic natures through the constant nervous strain that their responsibility puts upon them. Besides, these men receive psychic shocks from the hundreds of narrow escapes that the other trainmen, much less the public, never know of.

The postal clerk knows better than anyone else what an enormous proportion of his kind, shut up in their box-like cars, are yearly killed by the railways. Add to this a close attention and constant mental effort in sorting the mail and attention to his duties and you have sufficient to produce a psychic and neurotic instability, which in an accident is sure to blossom into a complete psycho-neurosis.

I do not believe at all, as Hamilton, that "the intellectual man is more apt to collapse under mental excitement and become demoralized than the individual of coarser stuff." On the contrary, I believe, with Bailey, that traumatism is more liable to produce psycho-neuroses in the poorer and less intelligent classes. But I do not believe with Bailey that it is the mode of life that effects this difference. I believe that it is the fibre of the man and his education that frees him from fear. It is the unknown that is feared. The unexpected frightens. This is a psychic law. It explains why we start with quickened and irregular heart action when we hear the breaks grind, or a danger whistle, or the honk of a near automobile horn.

REPORT OF THE OHIO LEAGUE FOR THE SUPPRESSION OF FRAUDULENT ADVERTISING.

D. R. SILVER, M. D.,
Sidney, Ohio.

This association was formed at the meeting of the Ohio State Medical Society at Canton in May, 1906, and consisted of about ten men, subsequently increased to about thirty members. Officers and an executive committee were elected and a working constitution was adopted. The avowed object was to enlist the medical men of the State, especially those interested in church work, in a protest against the use of religious publications by the American Proprietary Association for the furtherance of the schemes of fakers and charlatans.

This practice has become general on the part of religious newspapers, and is a most shameless and inexcusable prostitution of the power of that portion of the press which stands avowedly for the highest ideals in honesty, sobriety and truthfulness. The incongruity of this practice and profession seems to be unknown to the clergy, as well as to the great body of the supporters of these newspapers.

Whatever knowledge the publishers may have of the dubious character of such advertisements this knowledge is not shared by their patrons. It is inconceivable that that body of our fellow citizens which stands for the highest type of morality, to say nothing of religious conviction, would tolerate knowingly, a practice which strikes at the very root of the tree of purity in the home life.

It is a matter of ignorance on the part of religious people. For this ignorance the medical profession is responsible.

It is true that for a number of years physicians acting in individual capacity have endeavored to persuade editors and publishers of the error of their ways, but with little if any good result.

No organized effort was made in this State until the month of May last year. At that time the Public Health Defense League, whose representative is with us today, was not yet organized, coming into existence in the same year, November, 1906.

We are therefore pioneers in a great work, with no experience for guidance, and less than fifty dollars in the treasury. Fortunately a majority of the members of the executive committee live less than a hundred miles from the city of Cincinnati, where several church papers are published. Of these, two were selected for attack, the West-

ern Christian Advocate, the accredited organ of the Methodist Episcopal Church, owned and controlled by that denomination, and under the direction of its publication committee, and the Herald and Presbyter, published by Monfort & Co., owned, controlled and directed by that corporation. Ostensibly it is a Presbyterian publication, but having no authority to speak for that denomination and for whose acts the church of that name can not be held responsible.

The policy of the two churches in the conduct of their newspapers is therefore entirely different, and for this reason it was necessary to conduct the attack along different lines.

It was apparent from the beginning that on account of our small committee and meager funds it would be necessary to concentrate effort upon one point. The Presbyterian papers were chosen because this year the General Assembly, or great authoritative court of the church, convened in council at Columbus, Ohio, and its six hundred delegates and other attendants to the number of a thousand from every State in the Union, and from many foreign countries, afforded an excellent opportunity for the work of the League.

These people must be instructed. The only means at hand and the only literature available was the reprint from the press of the American Medical Association of the articles of Samuel Hopkins Adams. Between six and seven hundred copies of this pamphlet were sent out by the secretary, and in this way the leaven of knowledge which is to sound the death knell of the American Proprietary Association and kindred frauds was spread as it had not been done before. Besides instruction to the delegates, it was the object to get some kind of authoritative expression from them condemnatory of the practice of the church papers. Owing to the loose relation, or want of official connection between the church and the newspapers published in its name such action could be only advisory. No action of this or any other church court could be binding upon a private corporation which chose to adopt the name Presbyterian for its publications.

The General Assembly receives delegates from the presbyteries, of which there are about sixteen in the State. The individual churches are components of the presbyteries. Action by the presbytery can bind its own membership but not the newspaper. But no church paper could exist without the support of the pastors, and hence the tremendous significance of any condemnatory action by them.

To get such action either in the form of an

overture or otherwise was the object of the league, and this was accomplished by sending out to the members of the presbyteries copies of the Great American Fraud reprint.

This prepared the ground, and the result was that six presbyteries expressed themselves in unmistakable terms, declaring that they would refuse indorsement to church publications which refused to comply with their request.

The action of Lima Presbytery was taken as the type of these resolutions, and is here given in full for the reason that the clergy has rested under a cloud of doubt as to their real sentiment regarding charlatany and self-treatment with drugs:

CERTIFIED COPY OF THE ACTION OF THE PRESBYTERY OF LIMA.

The Presbytery of Lima, in session at Lima, O., this tenth day of December, A. D. 1906, by unanimous vote, puts on record its approval of the investigations which have led to the discovery of the immoralities and fraudulent practices connected with the patent and proprietary medicine business as conducted by the American Proprietary Association.

We give our hearty sanction to the efforts of many secular newspapers and journals to clear their publications of misleading and fraudulent advertisements. We counsel and advise editors and publishers of church papers of our denomination to do likewise, and to make no contracts with advertisers of medicines for self treatment, believing that such practice leads to charlatany, fraud and imposition.

Recognizing the pastor's responsibility in connection with reading in the households of his people, we demand that every line and sentence in the church paper, whether editorial, advertisement or other reading matter, shall be the truth, the whole truth and nothing but the truth.

We declare it our purpose to refuse endorsement to church publications which refuse to comply with this requirement.

That public announcement of this our purpose may be made, a note of this action is directed to be inscribed in the minutes of this meeting by the clerk, and copies of the same sent by him to the Herald and Presbyter, of Cincinnati, O., and the Interior, of Chicago, for publication.

D. EVANS JONES, Stated Clerk.

Venedocia, O., December 18, 1906.

Not less than two hundred ministers of the Gospel of this one denomination subscribed to this expression of condemnation of the practice of their own church papers, and may be taken as the sentiment of every other Presbyterian pastor in Ohio. That all others in the remaining ten presbyteries were not reached was owing to the lack of funds in the hands of the league. Moreover the overtures sent up to the General Assembly were answered in a similar spirit cau-

tioning newspapers against misrepresentation and fraud.

So that we may safely assert that this is the sentiment of all ministers of this denomination, and if so, that it fairly represents that of all men of this profession in this country.

The trouble is not with the morality of the clergymen, but in their ignorance of the facts, for which the medical profession is wholly to blame. We have failed to recognize the fact that we are teachers upon whom rests this responsibility.

Now, as to the results. The Herald and Presbyterian is today entirely clean. A personal letter from the editor says: "We shall try to keep our paper free of fraudulent advertisements, medical and all other kinds."

The Interior of Chicago has but one such advertisement, and the publisher says that the contract will not be renewed when it expires.

The conquest of these two great journals in one year may be regarded as a very great victory. Other papers of this denomination must now fall in line in self-defense. We are entirely safe in saying that fraudulent advertising of medicines for self-treatment in the newspapers of the Presbyterian Church is a thing of the past. This is meant also to include the United Presbyterian and the Cumberland churches.

The league can therefore pass on in its work to other denominational papers, but whether it does so or not depends entirely upon the support it receives at the hands of the profession.

Judging by the experience of the past year, the executive committee feels entirely justified in expecting this support. Wherever the cause has been presented it has met with approval. Especial mention is due the profession of Dayton, O., whose liberality enabled us to put one hundred and thirty-one dollars in the hands of the treasurer, and without this sum it would have been impossible to reach the six hundred commissioners of the General Assembly of the Presbyterian church.

If every member of the Ohio State Medical Society would join this league and contribute to its support to the amount of the initiation fee, it would enable us to send out at least 30,000 copies of the "Great American Fraud" reprint. The general distribution of this little pamphlet would solve the problem of fraudulent advertising without any other literature.

The executive committee would therefore earnestly entreat this society to take some steps toward securing general professional co-operation in this work. There should be an active or-

ganization in every county, and the councilors should see to it that the secretaries are charged with this duty. It is of course understood that religious journalism is only a small part of our work and that the real fight begins when the secular papers are attacked. It is almost useless to do this without education of the people, which can be done most effectively by the use of the little book referred to and by organization along the lines planned by the Public Health Defense League. Here and there local work has been done by county societies, but the committee feels that recognition should be given by the House of Delegates in an official way, so that concerted action may be made all over the state, that the whole power of this organization can be exerted effectively.

It is becoming apparent that business men are realizing the importance of truthful advertisements and that all such are discounted to the extent with which they are associated with those that are false and fraudulent. For this reason doubtless the Associated Advertising Clubs of America, in convention assembled in the city of Cincinnati at this time, passed unanimously the following preamble and resolutions, which speak volumes of encouragement to us who have thought ourselves solitary workers along this line of moral reform:

WHEREAS, The value of the advertisements depends largely upon the credence placed in them by the public, and lack of faith by the public in the statements of advertisements (due to false, fraudulent and misleading statements contained in some advertisements that are published) results in large waste of advertising appropriations; and,

WHEREAS, Unscrupulous men prey upon the unsuspecting members of the community by means of false, fraudulent and misleading advertisements; and,

WHEREAS, Every legitimate, conscientious and capable advertising man must feel it his duty to assist in protecting the public by eliminating incompetent and unscrupulous hangers-on of the advertising profession and by promoting truthful advertisement; now, therefore, be it

Resolved, By the Advertising Clubs of America, in convention assembled, that this association is opposed to the pernicious practices herein above recited, and to the end that they may be decreased or extinguished indorses for enactment as a law in all Legislatures of all states and territories the accompanying draft of a law "Regulating Advertisements and Prohibiting and Providing Penalties for Objectionable, Pernicious, False, Fraudulent or Misleading Advertisements." Congress is asked to pass similar legislation.

The act referred to provides for the prohibition of advertisements of "damaged goods," "fire sales," "bankrupt sales," where the merchandise

offered does not come truthfully under these heads; advertisements wherein is the promise of increase of future values, such as stocks, bonds, shares, etc.; advertisements wherein quality is exaggerated, misrepresented or inferior to the announced standard. "No cure, no pay" ads come under the ban also, as do those proclaiming superior skill and those enumerating symptoms of disease which are to be "cured."

This and other indications point plainly to the fact that this is an age of reform and that men will no longer tolerate exaggeration, fraud and deceit in the conduct of business. Trusts and corporations which propose to prey upon the diseases and weaknesses, physical and mental, of suffering humanity, as does the American Proprietary Association will find themselves opposed by an equally effective organization, which has inscribed upon its banners the legend, "Onward for honesty, sobriety and truthfulness."

TRI-CHLOR ACETIC ACID IN THE TREATMENT OF DISEASES OF THE NOSE, ETC.

E. H. PORTER, M. D.,
Tiffin.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

One of the most valuable drugs to the eye, ear, nose and throat surgeon is tri-chlor acetic acid, because it is a very powerful escharotic in concentrated solution; a good astringent and hæmstatic in weak solutions, and is generally useful to produce sloughing and subsequent repair of tissue where the one desideratum is quick healing, and in naso-pharyngeal work the least possible chance of adhesion formation.

It is made by the oxidation of chloral hydrate by nitric acid, is found pure in crystals and is best made into solution, either by the addition of a few drops of pure alcohol for the concentrated form, or pure water for the various strengths necessary.

In the treatment of corneal ulceration either central or marginal, our first endeavor is to bring the pathological process to a rapid stop, and then by suitable treatment, bring about as perfect a repair of tissue as possible, with the least scar formation. Various methods are in vogue, each one having its own particular sphere. To many the best results have been obtained by touching the ulcer, after thorough cocaineization and cleansing, with tri-chlor acetic acid, either pure or in a solution, the strength of which depends on the size of the ulcer, the rapidity of its onset and the

condition of the adjacent tissues. An ulcer found in a very early stage may often be stopped in twenty-four hours by a single application of a 5% solution, while one more advanced and virulent, may need a full strength solution repeated at frequent intervals. The acid is best applied to the spot with a bit of hard wood smoothed to a moderately sharp point. Each portion of any existing denuded area may be touched, giving especial attention to the edges. In a series of experiments made upon corneal tissue undergoing ulcerative changes as between pure carbolic acid, tr. iodine and tri-chlor acetic acid, the last gave far better and quicker results in healing. Phlyctenules of either the cornea or conjunctiva may be treated in the same manner and a rapid regression almost always results when the acid is used in conjunction with other appropriate treatment.

In cases of traumatic keratitis, in infiltrated area around the wound may often be stopped by one or two applications of a 25-50% solution, and several extremely severe cases have recovered completely after iodoform pencils and other vigorous methods had failed to check or stop the advancing infection.

It is often extremely difficult to completely remove the brown stain from the cornea left after the removal of foreign bodies, especially emery or flakes of iron which have struck the tissue probably heated, so as to burn as well as embed themselves in the epithelial structures. An immediate use of tri-chlor acetic acid after the foreign body is out has proven very satisfactory in removing these stains, as well as giving the additional safeguard of thoroughly cauterizing the wound and adding one more possible prevention from infection. Here a free strength solution is the best to use, and in twenty-four hours there is almost always a complete repair of the tissue with almost no suggestion of any irregularity of the surface.

All of us know from bitter experience how unsatisfactory results are sometimes obtained after the removal of pterygia even after the utmost care has been exercised, to prevent recurrence and excessive scar formation on the cornea. Here again tri-chlor acetic acid has been found most useful in removing little tags of tissue that could not be shaved off or trimmed away. The acid is applied pure to the denuded corneal surface as well as to the so-called canal at the cornea scleral junction. Some extremely good results have been obtained by this method, several on cases operated upon before. It is sometimes necessary to repeat this procedure two weeks or more after

the operation in order to remove the last traces of the old hypertrophic tissue.

It was Professor Politzer, if I am informed correctly, who first suggested and later by practical demonstration proved the worth of this drug in the repair of small perforations of the tympanic membrane after all suppurative conditions had ceased. Many old perforations, as well as recent, may be made to heal completely by repeated stimulation of the edges. In this condition success depends on a delicate technique and persistent effort at repeated treatments to effect a complete closure. The rim of the perforation only ought to be stimulated by the acid and a sufficient length of time intervene between applications to permit of the complete quiescence of the delicate newly-formed cell structure. Each case must be a law to itself; some will heal in three weeks with one or two applications, and others must needs have repeated applications to produce results.

Aural polypi, when small, may be completely removed with tri-chlor acetic acid, though in many cases chromic acid will act much better. Here again technique will have a great deal to do in curing the condition existing.

Since the electric cautery is not used as much as formerly, and in many cases the knife cannot be used, tri-chlor acetic acid has played an important role in the treatment of various forms of rhinitis, especially intumescent. The application is not painful after moderate cocainization, is very effective, a large slough coming away in about five days, and the danger from adhesion reduced to a minimum. Moreover the treatment may be repeated at intervals until the desired reduction of tissue is obtained. One patient who has been under my care for more than six years, presents herself about twice a year for a treatment with the "hot stuff," as she calls it, and it always produces the prompt relief required. For many years this patient had to spend several weeks in the north for relief from hay-fever, but has not had an attack for about five years. In applying the drug to the middle turbinate, a small incision is made with a narrow cataract knife and the acid applied on a cotton wound applicator directly into the wound; to the septum and inferior turbinates, application is made only to the surface and tissue reduced as necessary.

This drug is a valuable one for us in many cases. It is not useful in every one, nor will every case respond exactly as we might wish in using it, but it is well worth having near at hand as a constant helper. It must be used discreetly and with care, and here again, as in every branch of practice in which we are engaged, the personal factor must be considered in obtaining results.

DISCUSSION.

DR. R. D. GIBSON, Youngstown: In the last clause of the remarks of the speaker is his argument for presenting this matter at this time. The personal factor of the operator is the point essential to be considered in obtaining results in the use of so potent an agent as tri-chlor acetic acid in eye disease. I have used the galvano-cautery for a great many years, but I have never had the courage to use tri-chlor acetic acid on the cornea. Why? My experience in the use of tri-chlor acetic acid is like my experience with all other liquid caustics—it is exceedingly difficult to control. The man who has the courage to use a liquid caustic on the cornea must be peculiarly adapted to the use of such an agent. I can use the hot point and do what I want to do with it. I cannot use a liquid caustic and know that I am not going too deep. Therefore, I wouldn't think of trusting my hand—and I believe I have a perfectly steady hand—as perfect as any man's, nor even trust to use my judgment with tri-chlor acetic acid on the cornea. Therefore, I think the personal factor of the operator accounts for his success in this matter. I speak in this way for the reason that these papers go out broadcast after being published, and you will find inexperienced operators assuming to take up the new remedy and go forth in the new field and a great many eyes are lost. I only add my experience in this line as a caution to those not having experience in the use of so potent a drug.

WILLIAM B. VANNOTE, Lima: I enjoyed Dr. Porter's paper very much. I believe it is well to emphasize the caution Dr. Gibson mentions, but with a hardwood applicator there is no danger with the liquid caustics about the cornea. I use carbolic acid, and have never used tri-chlor acetic acid. I use a hardwood toothpick if the point is hard and smooth, and never dip it into the solution more than once. You do not want a drop on the end of the applicator, or you will have trouble. One time I stuck it in a second time and got more than I liked upon the cornea. As to the point in the paper that it will remove the rust stains—the albuminate of iron—after the removal of a piece of steel or iron, we have many such cases in our town, and I have been scraping them out; I think if this agent will remove the stain it will save much loss of time.

DR. E. H. PORTER, Tiffin (closing): I am very glad, gentlemen, that Dr. Gibson spoke just as he did about using tri-chlor acetic acid in the eye. As I tried to bring out in the paper, it is the delicacy of technique which will give success or failure. In my hands it has been successful. But I remember with regret a patient in my charge whom I turned over to another physician during a two days' absence, asking him to use tri-chlor acetic acid in the eye. The good woman was a Sister of Charity, and she had a pretty severe burn from the acid because it was not used carefully. But if you will use it with care and use the hard wood for the application, I believe you will get results from it that you will not get from other remedies.

STATE BOARD NEWS

"THE BOY PHENOMENON."

Two concerns under the above caption have been parading the state, advertising to cure all chronic conditions, including total blindness and deafness.

One is managed by I. S. Sherman, of Ashtabula, who employs a boy by the name of J. F. Keath to act as the "phenomenon" and any physician who will accept the salary offered, said to be \$25 per week.

A. S. McCasky and H. G. Boynton have the distinction of having acted in the professional capacity for Sherman.

The other company is managed by A. J. Adams, alias Antonius J. Wiechers, alias "Joseph the Healer," now known as "Fakir Antonius," and is said to have been arrested several times in New York for swindling. R. E. Brake acts as his "boy," and his position as physician is unenviable.

These two concerns have crossed swords, as a result of which the Medicine Board have been informed by each concerning the methods of the other.

Adams squealed first and gave information how to proceed against Sherman.

The scheme advised was used against Adams, and on November 15 he was arrested in Wells-ville and placed under bond of \$600 for his appearance in court the following evening.

The cash was placed in the hands of his landlord, who went on his bond. This money was attached by parties who were swindled and other creditors. The case against him was a slim one, and so another one was filed in East Liverpool, arrangements being made to arrest him as soon as released. Preliminary hearing was made, and as he had no funds he was sent to jail to await trial. In the meantime an immediate hearing was demanded, but the prosecuting witness was too ill to be taken from her home and a third affidavit had to be filed.

This affidavit charged fraud and asked judgment for \$82, the amount secured from the complainant, a blind man, who had been promised restoration of sight. A new bond was furnished, preliminary hearing again waived and the defendant bound over to the Probate Court of Columbiana county. Adams did not appear at the trial, and judgment was rendered against him.

When Adams was first arrested "Brake" was also under the name of "John Doe." After making the affidavit that he was the identical person holding the certificate issued to R. E. Brake by the

Board, that he was in the employ of Adams and acting as his physician for the concern then operating in Wellsville, he was released and notified to appear before the Medical Board on January 7 to show cause why his certificate should not be revoked.

It is to be hoped that this duel will result in the exterminating of both these concerns and all physicians who are or have been connected either directly or indirectly with either of them.

AN ASPIRING "PROPRIETOR."

We beg to submit the following, which is self-explanatory. Who will deny that many proprietary medicine manufacturers know just as little concerning their products?

Dec. 16, 1907.

Gentlemen of State Board of Medical Registration:

Dear Sir—I want to make a medicine or Compound a Preparation for Rheumatism and the Blood the Receipt Follows

4 Drams Epsom Salts	} Apothecaries
3 " Cream tartar	
4 " Saltpetur	
2½ " Sulphur	
½ Pound A Sugar	
4 Ounces Alcohol	
5 Ounces of Boiled Water	}
2 Dandelions	

Suggest Amount of Dose Best; Give my right to mix Compound and; sell, requirements of Lable and also Other Preparations or Patent Medisons I Do not wish to fill Prescriptions simply buy Pure Drugs and Compound Receipts I Have at Hand now. Yours truly

Harrington's solution will destroy pus producing organisms in less than thirty seconds and is extensively used for hand disinfection and in preparing the skin for incision. It contains the following:

Hydrochloric acid	60 parts
Alcohol (94%)	640 "
Water	300 "
Bichloride of mercury.....	0.1 "

Tumors should not be watched. They should either be removed or let alone.—W. J. Mayo.

The cessation of a purulent discharge from the ear should not be taken as a sign of cure. The pus may have found its way into the mastoid cells.—Journal of Surgery.

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CRIME AND INSANITY

Notable criminal trials in various parts of the country call attention to the necessity for more scientific methods of dealing with criminals who claim insanity as an excuse for their crimes and for the purposes of evading punishment for the same. Considerable criticism has fallen upon the medical profession because by the adroit framing of long hypothetical questions, which sometimes take hours to read, it has been possible to obtain from experts employed on each side, equally profound and equally positive, but absolutely antagonistic and diametrically opposed opinions as to the sanity or insanity of the prisoner on trial.

Such possibilities naturally destroy all the value of expert testimony, and the results will be a loss of respect for all such evidence, a lessening of confidence in the experts themselves and an elimination of all such evidence in future unless a decided reform in the method of procedure is inaugurated. The legal profession recognizes the true value of medical testimony and will undoubtedly co-operate with the medical profession in efforts to preserve its rightful status.

We believe that the hypothetical question should be eliminated or greatly limited in scope, or better, that the degree of responsibility of the accused should be established by the independent determination of the court. A commission of experts appointed by the trial judge, independently, representing neither the prosecution nor the defense, should be provided for and should consider the case; if it is a recognized type of insanity it should so certify to the trial judge who should have power to dispose of the case in the interests of both the accused and the community. Doubtful cases should proceed to trial and should sufficient evidence be produced to show lack of responsibility, the judge should have the power to stop proceedings and dispose of the case as he and the commission should decide best.

An institution for detention and observation of these cases should be provided where the degree of responsibility could be determined by competent observers and measures used as would be indicated.

Some such procedure would save much of the enormous expense frequently incurred by the present methods, secure the greatest measure of justice to the accused,

the greatest amount of protection to the community, and finally, to do away with the publication of the disgusting details revealed during these trials.

POISON LAW "DEAD" ONE

NOT ENFORCED IN THE CITIES SAY STATE OFFICIALS.

In its annual report the State Board of Pharmacy states that the poison law and the cocaine law are dead letters in most of the cities but are generally observed in the country districts.

After the board had arrested a druggist for running his store without being registered or having a registered pharmacist in his employ, it was proven that he was a cocaine fiend himself, and often ten or twelve friends gathered in the store and made a night of it.

The board asks to have the pharmaceutical law amended so as to do away with the imprisonment penalty. No druggist ever has been sent to jail under this law, and if fines alone were assessed it is argued cases would not be appealed to the higher courts to prolong litigation.

The above clipping from the Ohio State Journal of recent date is an ample justification of the position taken by the medical profession in its pleas in behalf of a new drug law before the committee of the legislature two years ago. The agents of the proprietary interests contended that the present law was an excellent one, so excellent indeed that it had served as a model for many other states and had been widely copied; they strenuously opposed any new legislation on the subject. On the other hand, the representatives of the medical profession claimed that the present law had been absolutely ineffectual; that it contained a clause inserted by demand of the owners of Chamberlain pain killers, which rendered it ineffective against most of the opium containing mixtures, and that a new law is necessary to meet all contingencies. The Committee acted favorably and reported the bill back to the house, but owing

to the short session, it remained on the calendar. The legislative committee is preparing to bring up this matter as promptly as possible when the legislature convenes.

SUPREME COURT KNOCKS OUT FEES FOR EXPERT WITNESS

The Supreme Court of Ohio has recently decided that witnesses called as experts can be paid only ordinary witness fees and not the special fees which have been allowed them as experts. This decision was made by the Supreme Court in the Franklin county case involving the payment of \$25 per day fees to Drs. Baldwin and Parker in the Taylor murder trial. State Auditor Guilbert cut these fees out of the cost bill rendered the state by the county. The County Commissioners sued to compel payment and lost.

This means that physicians in the future must see that they have a clear and binding understanding for special witness fees before agreeing to give expert testimony. Before the service is rendered the Prosecutor deals in glittering generalities; he does not wish to agree to pay a certain sum "lest it might prejudice the case in the minds of the jury," etc., but assures you that you "may rely upon it it will be all right." Sometimes it is, and sometimes it isn't. The writer some eighteen months ago was one of five or six who were beguiled into going to Knox county to give expert testimony by just such promises of the Prosecutor.

The actual fees paid were \$1 per diem and mileage! All remonstrance was in vain, and there is absolutely no recourse. A similar issue was encountered in Licking county some years since. While such unfortunate experiences have been the exception, after the above mentioned action of the Supreme Court it behooves the members of the medical profession to protect themselves in advance and in some way see to it that they may have some assurance of fair remuneration for the responsibility incurred in the giving of expert testimony and for actual time lost.

EDITORIAL NOTES

Elsewhere will be found a series of resolutions drawn up by the Cincinnati Academy of Medicine favoring the separation of the Board of Health from the Board of Public Service, and we are glad to note from the following clipping that influential members of the laity are co-operating

with the medical profession in endeavoring to secure this much needed medical reform:

INDORSES ACADEMY OF MEDICINE PLAN FOR SEPARATE HEALTH BOARD.

The City Club, at its meeting at the Burnet House yesterday, indorsed the plan of the Academy of Medicine to make the Board of Health entirely separate from the Board of Public Service, the members of it to be appointed by the Mayor. Drs. Otto Juettner, Friedlander, Mitchell

legal circles, it may not be so much so in the medical profession; therefore the following brief sketch is presented:

Mr. Kinkead was born of Scotch-Irish parentage on March 4, 1863, in Washington county, Ohio. He attended the Marietta College and early showed an inclination toward the study of law. He received some practical work in this line by acting as deputy clerk of the Probate



HON. EDGAR B. KINKEAD

and Iglauer and James N. Gamble were appointed a committee to urge upon the City Council the passage of the required ordinance. Dr. Otto P. Geier secured this action by the club.—Cincinnati Inquirer, December 8, 1907.

THE JOURNAL is very glad to be able to announce that the Committee on Public Policy and Legislation has selected as its legal counsel the Hon. Edgar B. Kinkead, of Columbus. While the name of this prominent lawyer is familiar in

Court of Washington County for six years and as a deputy clerk of the Supreme Court for several years thereafter. During this time he devoted all of his spare time to the study of law and was admitted to the bar in Ohio in 1889. In 1892 he opened an office in the city of Columbus and engaged in the practice of his profession, in which he has been signally successful.

He is, however, a many sided man, and, while he is ranked as an exceptionally clever trial law-

yer, as shown in his work as special counsel for the Attorney General in 1897 and 1898, when he took a leading part in the anti-trust litigation against the Standard Oil trust, he is equally or even perhaps better known as a student. For several years previous to opening his law office he served as assistant librarian of the Ohio Supreme Court Law Library, and in later years has written many treatises on various phases of his profession, and, quoting from a colleague, "His numerous works on legal subjects are standards, and are necessary to the library of every practitioner of law in the state or out of it."

For the past twelve years he has been a member of the faculty of the College of Law of the Ohio State University as Professor of Pleading and Practice and still finds time in the midst of a busy practice to deliver his tri-weekly lectures in that institution. He not infrequently appears also upon the lecture platform, for his versatile mind has wide range; he has an active interest in politics and has shown his ability in conducting a successful campaign. He was largely instrumental in overcoming the legal obstacles to the amalgamation of Starling Medical College and the Ohio Medical University, and is a trustee and professor of medical jurisprudence in the consolidated institution.

He brings a thoroughly trained mind, wide theoretical knowledge, great practical ability and a lively interest in the legal aspects of medical affairs to the medical profession, and the State Association should feel grounds for congratulation that it will be so ably represented.

Thirteen cases of smallpox were reported among the children attending a parochial school in Columbus last month, necessitating a temporary closing of the school. While vaccination is enforced in the public schools, we cannot find that it is even encouraged in the parochial schools. It is to be hoped that this outbreak will draw the attention of the church authorities to the necessities of the situation and lead them to co-operate with the public health officials in obtaining as complete a practice of vaccination of the children in all our communities as possible.

Great credit should be given to Representative Smith, of Iowa, who has introduced a bill into the national Congress last month for the purpose of making a national fight against tuberculosis by providing for the creation of a commission which shall consist of seven members, the surgeon general of the army and navy, of the bureau of public health and marine hospital serv-

ice and four experts on tuberculosis, to be chosen by the President of the United States from citizen practitioners.

The duty of this commission shall be "to inquire into the best methods for the prevention and control of tuberculosis, to avoid the spread of the disease and to recommend to Congress, the Legislatures and Boards of Health of the various states uniform measures for the prevention and control of the scourge."

This is a great step in advance, and the progress of the bill will be watched with great interest. No steps should be neglected whereby influence may be brought to bear which may help its prompt enactment into a law.

CORRESPONDENCE

CHILLICOTHE, O., December 10, 1907.

To the Editor: It must be evident to every intelligent voter of the great state of Ohio that the management of our state hospitals should be improved if the real ends for which they were primarily established are reached. If the treatment and cure of the afflicted inmates who are committed to these institutions is the desideratum, if results in recoveries are to be the standard by which to judge the management of these hospitals, then surely a change in government is imperatively demanded. At a meeting of the State Auxiliary Legislative Committee last winter a very full and free discussion was heard concerning this problem, and it seemed to be the consensus of opinion that the change which would give the quickest results would be to have a majority of the board of trustees physicians. The reasons given were many and potent. The trouble has been all along that these institutions have been run purely on a business proposition, that the financial report must conform to the ideas of the trustees, and the principal aim has been to make a good financial showing and incidentally cure a few unfortunate inmates.

How can a superintendent, no matter how capable, run an immense business and do research work in a laboratory? How can he manage a farm and at the same time study hundreds of patients in his hospital? And, if he should make a minute, detailed report concerning his cases, with recommendations for certain therapeutic measures intended to improve conditions, what would his trustees know about it? Surely, it must be evident to every intelligent man, if these great, expensive institutions which the state of Ohio gladly furnish and equip for our unfortunate people are meant for anything they are meant to treat

disease and to cure disease and to have health and sanity restored and not run as big hotels or prisons, where the aim and object is to confine and control human beings at so much per head, and the institution that is operated the cheapest is the prize-winner, no matter how many patients are poorly fed and mistreated.

Were a majority of the board of trustees physicians the medical as well as the business side would receive attention. The reports concerning every inmate would be inspected and passed upon,

the physical and mental condition of every patient would be known—and do you doubt that where such intelligent supervision was required that results would be changed for the better? Do you not believe that more cures would be reported if the physicians in charge of these hospitals had to report to a board of physicians competent to criticize their work? And do you not believe that the medical side of insane asylums should receive at least as much attention as does the business side? Very respectfully, G. E. ROBBINS.

MEDICAL ECONOMICS

THE ORGANIZED MEDICAL PROFESSION AND POLITICAL DUTY

Members of the Auxiliary Legislative Committee of the State Association will find matters of interest under "Medical Economics."

There will be a joint meeting of the Auxiliary and State Committees some time in January in Columbus to advise in the work of legislation.

It is requested that each secretary notify the chairman of the State Committee as to the name and address of the Auxiliary man as soon as possible after the annual election. This is a duty imposed by the by-laws of the State Association and is necessary to the organized work of legislation and public health affairs.

Duties of the Auxiliary Committee are defined in the October issue of THE JOURNAL.

In approaching local members of the Legislature to support bills proposed by the profession special attention should be given to quack advertisements of cures for venereal and sexual diseases and to the regulation of proprietary medicines. Amendment to the law on criminal abortion and the provision of a county health officer are of equal importance. Vital statistics and school inspection must not be neglected.

Mr. E. B. Kinkead, Esq., recently appointed by the State Association, has shown his aptitude for the work by securing a conviction of Ed. Pfeifer, an old offender against the Medical Practice act, and by the preparation of a number of bills. Watch him grow.

The County Commissioners of Franklin county should be emulated in other communities as a matter of public health defense in providing a tuberculosis hospital out of the funds from the Aikin liquor license law.

The failure to report cases of tuberculosis rests with physicians, as exemplified in most cities. Many local boards of health, acting under authority of state law, have adopted rules which have the force and effect of city ordinances, requiring such reports. Only a few physicians comply. Physicians seem to be exempt from the enforcement of this sanitary law, while other citizens whose occupation stand in relation to the public health are enforced to observe such regulations. The license of the state to practice medicine is based upon the protection of the public health. The organized activities of the laity in preventing the spread of tuberculosis is in sharp contrast with the careless attitude of many practitioners.

CURRENT MEDICAL LITERATURE

In Charge of J. E. TUCKERMAN, M. D.

LIQUID SOAP.

M. I. Wilbert finds that a soap made with sodium and potassium hydroxide is more soluble than when either alkali is used alone. The following formula can be made at about fifty cents a gallon:

Potassium hydroxid	40 gm.
Sodium hydroxid	40 gm.
Cotton seed oil	500 cu. cm.
Alcohol	250 cu. cm.
Distilled water, q. s. ad.	2500 cu. cm.

Dissolve the alkalis in 250 cu. cm. of water, add alcohol, then the oil in three or four portions, shaking vigorously after each addition. Shake occasionally until saponified, then add the remaining portion of water. To perfume the product, part of the water may be replaced by the oils used in Sig. Antisepticus alk. N. F., or Sig. Antisepticus, U. S. P.—J. A. M. A., Pharmacology Department, October 26, 1907.

HOW TO GET THE SPUTUM OF INFANTS FOR EXAMINATION.

As is well known, infants swallow whatever is coughed up into the nasopharynx. Holt (Archives Ped., September, 1907, page 642), in an article on "Infantile Tuberculosis," gives this method:

"Excite a cough by irritating the pharynx, and then to catch the sputum brought up into view, upon a bit of gauze or muslin. The cough may be excited by a spoon or a tongue depressor, or better, by a small bit of muslin in the jaws of an artery clamp. Upon this the secretion is easily secured when it is brought into view by the cough. Muslin is better than gauze or absorbent cotton. Swabs prepared as suggested are placed by the child's bedside and, when the nurse notices a severe paroxysm of coughing, the child is picked up and, if possible, the sputum is obtained. Inversion during the paroxysm of coughing sometimes causes the infant to discharge a considerable mass of mucus into a sputum cup. By the procedure mentioned it has not been found more difficult to obtain good sputum for examination than in corresponding stages of the disease in adults."

In tubercular meningitis the bacilli are sought for, both in the sputum and in the cerebral spinal fluid. In forty-two such cases, bacilli were found in the sputum in twenty-two, though in five there was no consolidation and in nine no signs whatever of lung involvement.

The search for bacilli in the spinal fluid is very tedious, the average time in the series given being two hours. In thirty-four instances they were found in the fluid from the first puncture; in six, in that from the second. For details of the technique the original can be consulted.

EXERCISES TO AVOID WRITER'S CRAMP.

Graham (Monthly Cyclopaedia Pract. Med., October, 1907, p. 441), directs that the method of writing be readjusted—arm motion taking the place of wrist and finger motion. The proper method is that which we who were taught the old free arm Spencerian method learned. Letters with long sweep, as "l," "g," "y," etc., are particularly adapted to practice on for this result.

As a preventive, he says: "Exercises of flexing, and extending, and separating the fingers, gradually increasing in vigor and duration, should be done three times daily. And for any one predisposed to writer's cramp, these exercises form a good preventive measure."

LATE SECONDARY HEMORRHAGES FOLLOWING REMOVAL OF ADENOIDS.

Wachenheim (N. Y. Med. Jour., October 26, 1907), reports two instances of bleeding on the fifth day in children not "bleeders." He believes the cause to have been imperfect removal of the adenoid tissue, and that the use of forceps is more liable than the use of the curette to be followed by late bleeding. Vinegar applied to the nares answers well, while adrenalin seems ineffectual.

[If the patient can blow both nostrils clear, and if the throat is seen to be clear after swabbing away the blood, and the bleeding stops as promptly as usual, one can be reasonably sure the work has been thorough. If bleeding persists it is well to wipe the naso-pharynx with gauze over the finger, which cleans away any little tags. After such care at the time of operation, secondary hemorrhages as above reported ought not to occur.—Ed.]

CLINICAL FEATURES OF HEMATURIA OF RENAL AND BLADDER ORIGIN.

Exclusive of the cystoscope and ureteral catheterization, which means must necessarily be more or less restricted, Christian (N. Y. Med. Jour., October 26, 1907), says:

"As regards the clinical features, those having the most bearing upon determining the source of the blood, are pain and frequent urination. All

things being equal, hematuria associated with pain over the lumbar region with or without frequent urination, is of renal origin. On the other hand, where there is marked pain over the bladder, together with decided increased frequency of urination, one is justified in regarding the bladder as the probable source of the hemorrhage. The character of the bleeding and the microscopic appearance of the urine are important factors in determining whether the bladder or kidney is involved. Hemorrhage from the bladder is apt to be intermittent in character, suddenly appearing and as suddenly disappearing. The urine is blood red in color, and is apt to be alkaline in reaction; on the other hand, hemorrhage from the kidney imparts to the urine the well-known "smoke color" appearance, the urine is generally acid and contains from time to time small wormlike clots of blood which are known to be casts from the ureters. If, as Ayres has noted on bladder irrigation, the blood rapidly disappears and quickly reappears, it probably comes from the kidney; if it disappears slowly and returns slowly, probably from the bladder."—Via Med. Record.

THE USE OF OIL ENEMATA FOR CHRONIC CONSTIPATION IN INFANTS.

Wunsch speaks highly (*Deutsche Med. Woch.*, March 15, 1906), of the use of injections of olive oil as a means of securing a cure in cases of obstinate constipation in nursing infants. The causes of the condition are numerous, but frequently, in spite of all possible attention to the mother's diet, the hygiene of the infant's anus, etc., and the application of the customary remedies, including ordinary enemata, suppositories, abdominal massage, laxative drugs, etc., attempts to cure the difficulty are ineffectual. In these cases the use of an enema of olive oil repeated about every other day for a certain length of time may bring about a normal activity of the bowels. In illustration the author describes a case which had baffled all other means of treatment but remained permanently cured after eight injections of olive oil.—Medical Record.

CACTIN: INERT.

As reported (*J. A. M. A.*, September 21, 1907), R. A. Hatcher's investigation shows that the cactina pillets of the Sultan Drug Company and the cardiac tonic of the Abbott Alkaloidal Company were found by him to be practically inert, even when given in doses hundreds and thousands of times as large as those recommended.

Nearly every month some two or three of our

exchanges have reports on the use of hyoscine-morphin-cactin-anesthesia either used for "twilight" narcosis in cases of labor or for deep anesthesia in various surgical cases. The above report makes it evident that such narcosis is really *only* hyoscin-morphin narcosis, and that when used we should not rely on the supportive action of the cactin, for it has none.

APPENDICITIS.

That one must be on the watch for the unexpected is shown by Rugh's report (*Ther. Gazette*, October 15, 1907, p. 673), of a case simulating sacro iliac disease, "the grouping and localization of the symptoms about the back of the pelvis and the absence of any other demonstrable lesions "being strongly suggestive of incipient disease." Later symptoms referable to the appendix developed and all trouble subsided on its removal. A second case, apparently sciatica, the only pain being "in the right leg and severe and sharp in character," which resisted treatment even with stretching of the nerve, proved to be referred pain from an appendix, and was relieved on its removal. The article cites other instances of like mistakes quoted from various authors.

A paper by Reder (*Amer. Jour. Obs. and Dis. of Women*, etc., November, 1907, p. 649), recites several instances of pain referred to the tubes and ovaries and aggravated at the menstrual periods, for which operation on tubes and ovaries proved ineffectual, while the subsequent removal of the appendix ended the trouble. In the discussion, Baldwin said: "That in several cases of dysmenorrhea operations had been performed, the tubes and ovaries removed, but pain still continued. The surgeon operated subsequently and found appendicitis. That emphasized a point he had been urging for a good many years and had constantly carried out, namely, that in young women especially the appendix ought to be examined in a case in which the abdomen was opened, and if at all pathological, as these appendices nearly all were, it should be removed. He was speaking now of young people. Had this been done in the cases cited by the essayist there would not have been appendicitis later on."

WHY OVARIES SHOULD NOT BE REMOVED.

Dr. Gill Wylie (*Med. Record*, November 2, 1907, p. 751), reviews his thirty-five years' experience and comes to the conclusion that "the ovaries should not be removed in any woman before forty-five, unless it was necessary to do so to save her life, or for some other good reason. If one

took an imperfectly developed woman under thirty years of age and removed both ovaries serious nervous symptoms would develop which would not have developed if portions of the ovary had been left. If one operated upon inflamed or infected tubes, it was best to save a portion of the ovary whenever possible. It had been Dr. Wylie's practice during the past ten or twelve years to treat with more consideration the tubes and ovaries. In removing fibroid uteri he believed that it would be wrong not to leave a portion of, or all of, the ovaries."

These views are not wholly concurred in by all who discuss this matter. However, they give the general consensus of opinion that the ovaries should be let alone unless evidently "guilty"; that the ovary really has functions other than ovulation which should be respected, but which are even yet sometimes overlooked or ignored, to the discomfort, if not detriment, of the patient.

CONTACT TYPHOID.

Hill (Jour. Minn. State Med. Assoc., November 1, 1907, p. 457), discusses the spread of typhoid by contact, and gives the following excellent rules of precaution:

"The trained nurse or the physician should know how to protect himself and should go through typhoid outbreaks without contracting the disease. This is done simply by *always regarding everything* in a patient's room as infectious, and never handling *anything* that is in or comes from the patient's room unless it has first been disinfected; if it is impossible to avoid handling the material before disinfection (in fact, some one must handle it before disinfection, in the very act of disinfecting it) then always immediately disinfect the hands. These two rules faithfully lived up to day by day, hour by hour, minute by minute, always and in every case, will entirely prevent infection from spreading by way of the hands. To prevent spread by flies, first screen the patient's room, both window and door (the latter by hanging mosquito-netting over it); secondly, never leave clothes or discharges exposed to flies, even for a moment, without first thoroughly disinfecting them; thirdly, screen the kitchen, both windows and doors. If possible the whole house should be thoroughly screened throughout, and any collections of stable manure near at hand should be removed, since it is in such that flies breed."

SANTONIN—AN AID IN DIABETES.

"S. Journet (La quinzaine therap., 1907, VIII., 31) has studied the interesting question of the

treatment of diabetes by means of santonin, and states that under its influence the glycosuria rapidly diminishes, the polyuria lessens, the patient's strength is increased, and the thirst and the dryness of the mouth are ameliorated. Santonin also possesses a stimulant effect upon the nervous system as well as an antispasmodic action, and, in view of the important role played by this system in the genesis of diabetes, ought to diminish the glycogenic function of the liver. Santonin should be prescribed, just as are valerian, camphor and its bromide, and the various cyanides, in conditions in which we wish to lessen or prevent excessive muscular contraction and when we desire to restore to the nervous system its normal regulator action. Bircage considers that this drug possesses an analgesic effect in the lightning pains of tabes, and that its feeble toxicity permits its continued administration."—Via Western Med. Review.

PUERPERAL INFECTION FROM THE GONOCOCCUS.

McDonald, (The Post-Graduate, October, 1907, p 1007), says that though the most frequent and most severe infections are streptococcic, a not inconsiderable proportion are due to staphylococcus, pneumococcus and gonococcus.

Before improved technic the gonococcus was frequently overlooked in the bacteriological reports. The gonococcus is easiest found when the pus cells are numerous and not while the lochia still contains much blood. That is when the discharge has become purulent.

The first course of a gonococcus infection is not acute, but the results may be far reaching; tubal and mild pelvic inflammation not being rare, while even a diffuse general peritonitis may occur.

An interesting fact in connection with this infection is the malnutrition and intestinal disturbances to which babies of infected mothers are subject, and which results in an increased morbidity among them.

"The gravity of this infection exists not so much in its prime infection and immediate constitutional disturbances as in the more remote result of tubal and pelvic disease some time after the puerperium. It is a well-known fact that streptococcus infection results in slight anatomic alterations of the pelvic organs after recovery from the infection, but the reverse is true of gonococcus infection where marked alteration of tissue is the rule and spontaneous recovery from pelvic disease from this cause is the exception."

ANATOMIC AND PHYSIOLOGIC REST OF THE PERITONEUM IN PERITONITIS.

Byron Robinson (Boston Med. and Surg. Jour., Nov. 7, 1907, p. 634), believes that there is "too slight attention paid to the subject of anatomic and physiologic rest by many general practitioners and general surgeons. * * *

Anatomic rest is maximum quietude of skeletal or voluntary muscles. A voluntary, motionless state is secured by rest in bed, not rising for defecation or urination.

Physiologic rest is minimum visceral function. Minimum visceral function is controlled by means of fluid, food, mental quietude and therapeutics. The essential factor in minimum visceral function is peristalsis. Visceral peristalsis is an executor of pain and a distributor of sepsis. The method of treatment for abdominal pain by anatomic and physiologic rest was especially advocated by the distinguished English physician, Wilkes, in 1865 (living at present), continued by the famous American, Alonzo Clark (1807-1887), by the "opium splint," and established forever in 1888 by one of the greatest surgical geniuses of his age—Lawson Tait (1845-1900). * * *

First and foremost, the most striking success in anatomic and physiologic rest is shown in septic abortions. * * * When the abortion patient arrives at the hospital, septic, with a temperature of 105°, pulse 120 to 140, with severe tympanites, she is placed on her back in bed, she is not allowed to rise for stool or urination (anatomic rest). No food or fluid is allowed per mouth; she is given a hypodermic of morphine for pain, and warm normal salt solution is injected into the rectum to abate thirst (physiologic rest). * * * It is astonishing what a day and a night's anatomic and physiologic rest will do for a septic aborted patient. She soon becomes easier. The small doses of opium aid to check the pain which is wild peristalsis. The tympanites subside. In a few days one finds the peritoneal exudate still there, but in a couple of weeks, if abscess formation does not occur, they begin to subside, absorb. Put the intestines at rest and they will not distribute the sepsis over the abdominal cavity by wild and irregular peristalsis. Under anatomic and physiologic rest, seldom does one lose an abortion patient."

Robinson believes in like treatment for perityphlitis and that catharsis should be avoided. "What the perityphlitis patient requires is anatomic and physiologic rest, no food and minimum quantities of fluid per mouth; however, ample injections of normal salt solution per rectum to control thirst, and opium to quiet the pain, until

when? Until recovery, or until he is ready for an operation in a stage as quiescent as possible. * * *

"In cases of acute peritonitis, no fluid or food should pass per os. All required fluid should be administered by means of a fountain syringe, by means of slow, drop by drop, rectal irrigation. By this method all visceral peristalsis is diminished, and pain subsides. Intestinal as well as genital peristalsis distributes sepsis. The two visceral tracts which should pursue maximum activity in peritoneal disease are the tractus vascularis and tractus urinarius. Both the vascular and urinary tracts may be treated alike effectually by the same method, viz.: gradual, slow, rectal irrigation with normal salt solution—8 oz. per hour.

"This lends volume, that is, vigorous peristalsis, to the vascular system and forces abundant elimination through the kidneys. The peristalsis of both tractus urinarius and tractus vascularis are vigorous, yet neither practically disturbs the peritoneum sufficient to distribute sepsis. * * *

"Vastly more patients would be saved in abortions and salpingitis, if the tractus genitalis was more frequently placed in anatomic and physiologic rest. Physiologic rest presents a double-edged sword of utility, for it is not only the most effective and safe remedy to avoid dangerous operation, but it is the most effective and safe method to prepare the patient for safe operations."

External to the peritoneum, the value of anatomic rest in inflamed joints, spondylitis and fractures is commented on.

[In this age of forgetfulness this article is timely. We take it, no intention is entertained by the author of objecting to the drainage of septic foci, nor to the prompt removal of such foci before peritonitis results. (*e. g.*, The removal of an appendix in the incipient attack.) But even were such his intention it is well to reflect that even before operation anatomic and physiologic rest is too often unprovided for and after operation too often overlooked and neglected.—ED.]

QUININE PILLS OFTEN PASSED UNDISSOLVED.

The experience of Vanderhoof (J. A. M. A., April 20, 1907), in having pills pass the bowel undissolved can no doubt be duplicated in the experience of many physicians. Vanderhoof's experience occurred with a malarial patient. Even as he relates, others have seen quinine sulphate in capsules pass unchanged except for the solution of the gelatin. We have seen this occur, both in malarial and in rheumatic patients,

and it is not uncommon to recover coated pills of quinine or other drugs from the stools of typhoid patients. The bisulphate of quinine is less liable to be undissolved and is, therefore, preferable, but undoubtedly the surest way is "to give quinine in solution with a mineral acid—*e. g.*, quinine sulphate 5 grains, dilute hydrochloric acid 5 minims, water to 1 drachm," or if given in capsule to follow the dose after a few minutes by 10 minims of dilute mineral acid.

SKIN GRAFTING WITHOUT ANESTHESIA.

Rose (Med. Record, Nov. 16, 1907, p. 809), gives careful minute directions for skin grafting. He says: "Skin grafting is generally considered to be a difficult surgical operation, requiring a general anesthetic. In reality it is very easy, and it does not require any anesthetic at all, not even local anesthesia, except in rare instances. * * * It can be easily and successfully done by the ordinary physician in his office or in the homes of his patients. It need not bear any resemblance to major surgery. In fact it is minor surgery first, last and all the time. But skin grafting without anesthesia is not of minor importance by any means. * * * The cutting of a very thin graft, composed as it is mostly of the corneal layer of the epidermis, causes very little pain. Patients describe it as a burning feeling, and it causes in nearly all of them only a sharp indrawing of the breath, "ssss," for the few seconds required to remove the grafts; then the pain ceases. * * * If the various benefits that the patients will receive, such as quick healing, avoidance of scarring, deformity, and disability, diminution in the number and frequency of painful dressings, each one of which may be as painful as skin grafting without anesthesia. If these and many others be brought to the attention of the patients, they will nearly all, nervous or otherwise, entirely disregard the trifling pain that they will expect to suffer, and choose to be treated by this means of healing."

Any healthy granulating surface, as a fresh wound after bleeding has been stopped with hot salt solution; "fat, muscle, connective tissue, periosteum, etc.," will take grafts. Grafts should be placed on surfaces from which a slough has separated as soon as clean to avoid scars and contractions.

Salt solution, a very sharp razor, a probe, cotton pledgets, narrow strips of silk protective tissue and the usual dressing materials are all that one requires.

The surface to be grafted is cleansed with

warm salt solution, while the area from which the grafts are to be taken (preferably the inner, upper surface of the thigh) is washed with soap and water, followed by alcohol, and then salt solution. The razor (previously sterilized in 5% carbolic sol. and rinsed in salt solution) is applied lightly to the stretched skin and the graft removed.

"Keep the graft thin by holding the blade almost flat on the skin, varying the angle as necessary just to keep it engaged, and no more. Remember, the razor must be *very sharp*, there must be *no pressure* with the edge, the graft must be *very thin*—and just *keep on sawing*. A graft can easily be cut 1 inch to 2 inches wide, as long as desired. * * *

"Spread the graft at once directly from the blade. Drop some salt solution squeezed from a cotton pledget over the surface of the wound, then lay the edge of the blade against it, fix the end of the graft with the probe against the wound, and then withdraw the blade from under the graft. This spreads the graft almost perfectly. Any fold or air bubble may be easily worked out by pressure with the probe over it. The edges of the grafts should be made to overlap one another, if possible, and also the edges of the wound. This can readily be done by sliding the grafts by means of the probe to the desired position. Spaces left between grafts, while they heal fairly well in ordinary cases, are peculiarly liable to blister and break down, often involving a much greater area in the ulceration, and proving very troublesome to heal over without grafting again. * * *

"Apply the dressing as follows: (1) One sheet of silver leaf laid carefully over the grafts. (This material may be obtained where painters' supplies are sold.) [The foil is not essential.—Ed.] (2) A lattice work of strips of silk protective tissue about half an inch in width, and long enough to extend an inch or two beyond the margins of the wound. They should be wet in the salt solution and applied gently. When dry they adhere to the skin, and so fix the grafts firmly from all directions. (3) Two or three thicknesses of gauze, either dry or wrung out of salt solution, and laid smooth. (4) A moist gauze bandage should then be laid very evenly and quite firmly over the grafted area, extending some distance above and below. This completes the inner dressing. (5) Then an abundance of dry, fluffy gauze or absorbent cotton. (6) A splint if necessary to prevent movement of the parts. (7) An outside bandage applied loosely over all. This completes the outer dressing.

"This combination of two separate and distinct dressings both fixes and protects the grafts. Any movement of the dressing caused by a bump, or knock, or friction of the clothing, takes place between the two bandages, not extending to the grafts. *This is very important, for if the grafts move they die.*" * * *

"The wound is dressed every one, two or three days, as seems best. Great caution is used in removing the dressing, as well as in applying it, so as not to move the grafts. (1) Cut the outside bandage and remove the dressing down to the inner bandage. (2) Cut the inner bandage with sharp scissors along a line not over the grafts. Then remove the bandage and the gauze gently and gradually, after thoroughly moistening both with salt solution, especially over the lattice work of protective tissue strips, so as to leave this undisturbed. (3) Free the ends of the protective tissue strips all around; then, keeping the salt solution dropping all the time, turn down the lattice work and separate it very gently from the grafts. If this is done carefully, no grafts will be pulled off, or flushed off, or moved. Never rub, scrub, or sponge the grafts. If any secretion, or bit of silver leaf, adheres after salt solution has been gently dropped over it to flush it away, it is best to leave it alone, as it will do no harm and will come away of itself in due time. Beware of meddlesome cleanliness. Cultivate a certain amount of neglect. [It is usually wise not to disturb the silk protective until the fourth or fifth day. The spaces between the strips give free enough drainage.—Ed.]

"(5) Repeat the dressing, as at first, with the same care and attention to detail. In ordinary cases after the tenth day a simple boric-acid ointment dressing may be applied. If the grafts are on an extremity, and there is any interference with the circulation, with edema, it is best to strap the part with zinc oxide adhesive strips, beginning well below the grafted area, and extending quite a distance above it. Each strip should pass clear around the limb and cross in front at a higher level, like a figure of eight. Each succeeding strip should overlap the preceding one about one-third. A little boric-acid ointment should be smeared over the grafts under the strips. This will protect the grafts from breaking down and keep them in place."

[Should local anesthesia be desired, 1/10% eucaine, which can be sterilized by boiling, can be used to infiltrate. First make a superficial skin infiltration line across the thigh in the usual manner, then enter the needle deeply at several points along this line and infiltrate the subcu-

taneous tissues, just beneath the true skin for one to two inches, which a long needle will allow. This deep infiltration does not disturb the surface as it raises no blebs, and hence the grafts are as easily removed as when no infiltration is used. Many surgeons keep the dressings over a grafted area moistened with normal saline solution during the first four or five days.—Ed.]

ACTION OF MORPHINE UPON THE GENITAL APPARATUS OF THE WOMAN.

"Lutaud has found, in the course of several years of treatment of drug *habitués* that the effect of the morphine habit on women is to stop menstruation and to take away all sexual desire. He thinks that we may make use of these facts in the treatment of gynecological diseases in which there is metrorrhagia. Such conditions are menorrhagia without lesions, menorrhagia and metrorrhagia due to fibromata, and that due to the destruction of tissue by cancer. In the first class are women whose profuse menstruation menaces life and here morphine may save life, and yet the patient need not become a morphine *habitué* if the drug is withdrawn skillfully. In fibromata its use may serve to tide over a few years until the menopause changes put an end to the growth of the fibroid and atrophy takes place. In cases of uterine cancer it is the duty of the physician to make of his patient a morphine taker, since only thus can she be comfortable for the rest of her existence. He has seen cases in which the use of morphine has not only made the patient comfortable for years, but has actually prolonged life. It retards vital exchanges, lessens secretions, and retards the evolution of the neoplasm, and life is longer."—Journal de Medecine de Paris.—Via Med. Record, Oct. 12, 1907.

CURE FOR ACUTE COLDS.

Quigley (West. Med. Review, Nov., 1907, p. 390), says: "The complete formula, as I have used it for several years, is as follows for each dose:

Phenacetine	grains, 1
Dover's pulv.....	grains, 1
Quinine sulph.....	grains, 1
Sodium salicylate.....	grains, 1ss
Capsicum	grains, 1/8
Oil peppermint.....	m ss

One such dose every hour.

I do not recommend this formula in the form of cold known as "cold in the head," that is confined entirely to head symptoms. I find the popular rhinitis tablet of belladonna, camphor and

quinia particularly well suited to the treatment of this form of cold."

[Dover's powder, quinine, and capsicum, combined with a good saline cathartic very often will check a "cold" and is a good old-fashioned remedy. The addition of phenacetine will often be an advantage, but it must not be forgotten that so little as 3 gr. has produced uncomfortable collapse in susceptible persons. When using coal-tars of this group, it is well to guard their action with from 1/80 to 1/20 gr. of strychnine to each 2 to 3 grs. of coal-tar. There is no objection to the salicylate except that occasionally even the "true salicylate" upsets the stomach of the patient. The formula given is good, but we should always remember it is the "patient with a cold" and not "*the cold*" which we are to treat.—ED.]

THE SUCCESSFUL TREATMENT OF CHOLELITHIASIS.

Dillon (West. Med. Review, Nov., 1907, p. 428), reports:

"Having had some cases of gall stone colic in which the patient refused to submit to surgical means for relief, I was forced to try different medical lines of treatment, finally confining myself to the different sodium preparations, and eventually coming to the following formula, which has given excellent results in my hands:

Cascarin	1/10 grain
Phenolphthalein	1/3 grain
Acid sodium oleate.....	1 grain
Salicylic acid, pure, from true oil	1/2 grain
Menthol	1 grain

Mix and make one pill.

I am not claiming for this formula that it will cause solution of the gall stone, or that it will relieve those severe cases where there is pus infection of the biliary tract, but that it will relieve those cases in which there is not present a pus infection, probably by relieving the catarrhal conditions present and lessening the viscosity of the bile. * * *

Another class of cases in which I have found this, or a similar formula, exceptionally beneficial, is those occurring repeatedly in women who consult the general practitioner with a flatulent indigestion, chronic constipation, and those vague aches and pains which are the result of an auto-infection that has been going on for years, the result of constipation.

One thing which is important with this formula is to follow it by a copious draught of hot water. It is not a cure-all, but in well selected

cases will prove extremely valuable. * * * A thing to be made sure of is that all the ingredients entering into the pill are of the highest purity, and salicylic acid be made from the true oil of wintergreen, and not the synthetic product."

CARBOLIC ACID POISONING, IODINE IN.

"Three cases are reported which demonstrate the great value of iodine as an antidote for carbolic acid. In two the iodine was given early, before any general toxic symptoms developed, and acted most beneficially in relieving the burns of the mouth and throat. In the third case all the general toxic effects were fully developed, the abdomen being tympanitic and the stools dark and slimy; yet the patient recovered. In all the iodine was given in the form of the tincture. The doses varied from a few drops up to a drachm. The chemical compound formed as a result of the reaction between iodine and phenol is apparently harmless. For practical purposes it is probable that equal parts of tincture of iodine and carbolic acid are complementary."—J. Maberly (Lancet, August 3, 1907).—Via Cyclopedia Pract. Med.

BOOK REVIEWS

A TEXT-BOOK OF PHYSIOLOGY: FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph. D., M. D., LL. D., Professor of Physiology, Johns Hopkins University, Baltimore. Second edition, thoroughly revised. Octavo volume of 939 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$4.00 net; half morocco, \$5.00 net.

The great interest in recent years in physiological subjects aroused by the advances made in these studies has brought forth the many textbooks by American writers which are a source of considerable pride. The reviewer feels that one of the best of these is the well known above mentioned work of Dr. Howell, of the Johns Hopkins University. This second volume, which in general arrangement follows largely the plan of its predecessor, has, however, been thoroughly revised and brought up to date, so as to be in keeping with the latest developments and discoveries.

The author considers each subject comprehensively, and especially on disputed questions endeavors to give the student the various phases fairly and thoroughly, following up the discussion, however, by the description of his own findings in such a strong and convincing manner as to carry conviction to his views.

His arrangement of the physiology of the nervous organs is particularly good, and the care and space given to the organs of special sense is unusual and the most satisfactory we have seen.

The work, as a whole, will be of the greatest value to the teacher and student and should be a welcome addition to the library of every reading and thinking practitioner who keeps abreast of the times.

HOSPITAL ABUSE AND THE REMEDY.

Holding the members of hospital staffs as at least passively responsible, it is to these physicians that the medical profession naturally looks for the application of the remedy.

This remedy, it seems to me, is simple. It will be as effective as the real spirit of medical ethics and fraternalism is strong. Briefly my suggestions are these:

A statement of the financial condition of the patient should be made a part of the case history or the permanent record of every patient for whom gratuitous service of the medical or surgical staff is asked, whether it be in a public or semi-public institution.

Along the same line relative to obstetrical work, Bacon (Ibid., p. 239), says:

"Suffering must be relieved and needed help given to the poor. The general humane sentiment of mankind demands as much. But the physician alone should not be required to render this aid any more than the restaurant keeper should be required to feed the hungry, or than dry goods merchants should be compelled to clothe the ragged poor. * * *

It is also coming to be recognized that there is a pauperizing tendency in the bestowal of medical aid without requiring any equivalent. If emergency cases like surgical accidents were the only ones thus helped, the temptation would not be so great, but when a pregnant woman learns that she can be confined free in a hospital and have the best of professional care and skill she will make no effort to accumulate means to properly pay for the services of a private physician."

While Renn (Ibid., p. 243), cites the following interesting facts:

"One of the members of our society was requested by the husband of a woman he was to operate on as a charity case to endorse a bank draft for \$1,000. * * *

Out of seventy-six families whose financial af-

fairs the bureau of charities investigated for us in 1906, only seven were reported worthy of free medical treatment at the dispensary, although the other sixty-nine had stated that they were unable to employ a physician. * * *

Only eight out of thirty-four dispensaries have public signs announcing that treatment is only given to the poor. Many people, well able to pay, go to these institutions ignorant of this fact, believing that they are not only welcome as long as they are willing to serve as clinical material, but their attendance is solicited. * * * There is, besides, an unwarrantable distinction made in this and other charities. Ask the county agent over the 'phone for medical relief and a physician is sent at once. No questions are asked, no reference is required. If the individual asks for rations—the average cost of which per year for 29,248 applicants who received aid during the year 1905 was \$2—a searching investigation is made before relief is given. If a physician's services are needed, no investigation is made, but strict inquiry is necessary in order to receive 30 cents' worth of groceries."

After the introduction of the Murphy button no sutures should be applied over the button.

The success of the Bie treatment depends upon the proper selection of cases, the intelligent application of the elastic bandage and a persistency in treatment.

Normal blood will coagulate in from two to eight minutes. In hemophilia the time may be fifty minutes; in purpuric conditions ten to thirty minutes.—Wile.

Malignant tumors of the glandular structures of the breast are ten times as frequent as innocent tumors. Sarcoma is rare; carcinoma is very common.—DaCosta.

Always examine a child suffering from chorea for the presence of adenoids. The removal of the growths in the back of the pharynx may cure a mild case.—Am. Jour. of Sur.

Septic troubles arise more rapidly when a gall stone is blocked in the common duct than when stones merely block the gall bladder, because the first named part is richer in lymphatics.—Murphy.

COUNTY SOCIETIES

FIRST DISTRICT

The Cincinnati Academy of Medicine had the following program for November:

"Recent Advances in Infant Feeding," by Frank H. Lamb. The author discussed the calorimetric standard of feeding, the volume of the food in twenty-four hours, the interval between feedings and the composition of the food.

Calorimetric values he reduced from the metric system to pounds and ounces, making the calculation so simple that it may be used by all. The necessity of the calorimetric method to prevent over-feeding and under-feeding was shown.

Fat, proteid and carbohydrate metabolism were discussed in detail. The author's conclusions are as follows:

1. The most important thing in infant feeding is to know the exact amount of food the child receives in twenty-four hours. The only way to do this is to calculate energy quotients.

2. The percentage method is uncertain, complicated and unscientific.

3. Food amounts, not per cents.

4. Overfeeding is one of the most common causes of nutritional disturbances in children and is a distinct clinical entity.

5. Fat is the element in cow's milk to be feared.

6. Fat produces constipation; proteids never do.

7. The curds in the stools are not proteid, but calcium soaps, fatty acids or fats.

8. Casein is not difficult to digest, does not produce digestive disturbances and does not undergo putrefaction in the intestinal canal.

9. The new-born infant can digest starch.

10. Dextrins and starches are the most valuable adjuncts to milk feeding.

11. The volume of the food should depend on the weight of the child and never exceed thirty-six to thirty-eight ounces.

12. The interval between feedings should never be less than three hours and after three months four hours.

"Prevention of Venereal Diseases Through Education," Phillip Zenner; "Brain Landmarks," Howard Ayres; Case Reports.

At the regular meeting of the Academy of Medicine of Cincinnati, on November 25, 1907, S. P. Kramer introduced the following resolutions:

Resolved, That the Academy of Medicine of Cincinnati respectfully petitions the General Assembly of the State of Ohio to repeal the law permitting the Board of Public Service to serve as a Board of Health.

Resolved, That the president of the Academy of Medicine of Cincinnati appoint a committee of five to wait upon the Hamilton county delegation to the General Assembly and request their support for the above measure.

The Butler County Medical Society met November 14. The program was as follows:

"Treatment of Pneumonia in Children," F. H. Lamb, Cincinnati; discussion by Dr. Blair, Lebanon. "Etiology of Mal-Results of Fractures," C. M. Paul, Cincinnati; discussion by Mark Millikin, Hamilton. "Some Modern Notions About Tuberculosis," S. C. Bond, Richmond, Ind.; discussion by L. H. Frechtling, Hamilton.

Afternoon Session.—"Version," Wm. Gillespie, Cincinnati; discussion by Jas. McCready, Monroe. "A Doctor's Sermon to Parents and Teachers," Dan Millikin, Hamilton; discussion by L. T. Todd, Hamilton.

The Brown County Medical Society held its regular monthly meeting Wednesday, November 20. George P. Tyler, of Ripley, read a paper, after which a clinic on skin diseases was held by A. Ravogli, of Cincinnati.

The fourth annual meeting of the First District Medical Society met in Cincinnati on December 12 and 13. At the first and second sessions, held on Thursday morning and afternoon, the following program was presented:

Reading of minutes. Election and installation of officers. Address by the retiring president, Otho Evans, Franklin, O. "Acute Rheumatism," T. C. Crawford, Dunkinsville, O. (Franklin county). "Rheumatism," M. W. Lang, Ridgeville, O. (Warren county); discussion, E. W. Mitchell, John E. Greiwe. "Therapeutics," J. B. May, New Holland, O. (Fayette county). "Cathartics, Hypodermatically," E. S. McKee, Cincinnati, O. (Hamilton county); discussion, Julius Eichberg, Allyn C. Poole. "Purpura," G. M. Austin, Wilmington, O. (Clinton county); discussion, George Fackler, Oliver P. Holt. "The Doctor's Relation to the Public Schools," L. Nelson, Hillsboro, O. (Highland county); discussion, John M. Withrow, Louis Schwab. "A Consideration of some of the Features of Femoral Hernia," W. D. Haines, Cincinnati, O. (Hamilton county); discussion, John C. Oliver, Robert Carothers. "Post-Partum Hemorrhage," James G. Grafft, Trenton, O. (Butler county); discussion, E. Gustav Zinke, Wm. Gillespie. "Prevention of Venereal Diseases Through Education,"

Philip Zenner, Cincinnati, O. (Hamilton county); discussion, August Ravogli, Dudley Webb. "When Is Gonorrhœa Cured?" E. O. Smith, Cincinnati, O. (Hamilton county); discussion, Meyer Heidingsfeld, Walter Weaver.

In addition, C. L. Bonifield, president of the State Association, addressed the Society on "Organization," and J. H. J. Upham, State secretary, made a brief address along similar lines.

In the evening a complimentary dinner to the out-of-town guests was given by the Cincinnati Academy of Medicine.

The officers elected for the ensuing year were as follows: President, R. D. Francis, Ripley; secretary, John D. Miller, Cincinnati; treasurer, E. W. Mitchell, Cincinnati.

The second day was devoted to special clinics in the city hospitals.

At the December meeting of the Fayette County Medical Society the election of officers resulted as follows: President, A. A. Hyer, Moons; vice-president, W. E. Ireland, Washington C. H.; secretary and treasurer, D. H. Rowe, Washington C. H.

The regular monthly meeting of the Butler County Medical Society was held Friday, December 20, 1907, at 3:15 p. m. in Howe's Hall, 250 High street.

G. A. Herrmann of Hamilton read a paper on "The Feeding of Infants." P. M. Sater of Hamilton presented a paper on "Hyperchlorhydria."

SECOND DISTRICT

At the regular monthly meeting of the Darke County Medical Society, December 12, 1907, the following officers were elected: President, J. E. Monger, Gettysburg; vice-president, W. F. Fitzgerald, Greenville; secretary and treasurer, G. W. Burnett, Greenville; committee on public policy and legislation, Phillip Dickes, Greenville; delegate to State Association, J. E. Monger, Gettysburg; alternate, M. M. Corwin, Savona.

Charles Baker reported a case of "Anterior Poliomyelitis" occurring in a child three years old. Referred to Drs. Carothers and Ratchford, of Cincinnati, for diagnosis and treatment. Child was unable to control movements of head and right deltoid muscle. In the beginning there was partial unconsciousness and somnolence, with suppression of urine for twenty-three hours. The consulting physician recommended a loose plastic collar, with massage of the affected muscles, with nourishing food and tonics.

Wm. C. Guntermuth reported a case of obstruction of the bowels of eight or ten days duration,

having a history of obstinate constipation for six months previous. There was only slight elevation of temperature and pulse, repeated vomiting of water with a fecal odor, some fluctuation, tenderness and tympanitis in region of ileo-cecal valve. A median laparotomy was done, which revealed tubercular paritonitis and at one point a large tubercle with a band of adhesions constricting the ileum. Removed the tubercle, broke up the adhesions, closed bleeding points with Lembert's sutures. Removed about a quart of ascitic fluid. Closed the abdomen without drainage. Case operated December 2. At present time doing well. Patient thirty-six years old; female.

The Hancock County Medical Society held their annual business meeting on the evening of December 5, Don C. Hughes, vice-president, presiding. The annual reports of the secretary and treasurer were read and approved. Application was received of S. G. Herrington to become a member. The application was placed in the hands of censors.

The election of officers resulted as follows: President, N. L. McLachlan; vice-president, R. N. Lee; secretary, N. B. Kennedy; treasurer, J. P. Baker; censors, (for two years) J. A. Kimmell, (for three years) E. G. Hersh; delegate to Ohio State Medical meeting, J. M. Firmin; alternate, Earl Thomas; committee on public health and legislation, J. P. Baker, J. A. Kimmell, J. H. Varnum; member of State Auxiliary Legislative Committee, J. P. Baker; committee on entertainment, Drs. McLachlan, Tritch, Entrikin, Biggs, George, Kennedy and Hughes.

The Dayton Academy of Medicine met Monday night, December 9, at its rooms in the Ludlow Street Arcade. O. C. Griep read a paper on "Basilar Meningitis," while R. C. Pennywitt read a paper on "Chorea." Following the business, a social session was held.

THIRD DISTRICT

The annual meeting of the Marion County Medical Society was held December 3. It was well attended, and much interest and enthusiasm were evinced.

The election of officers was held, with the following results: President, R. C. M. Lewis; vice-president, C. W. Sawyer; secretary, Dora O. Weeks; treasurer, E. O. Richardson; member of board of censors, A. M. Crane; delegate to the Ohio State Medical Association, J. W. Adair; alternate, L. D. Hamilton, all of Marion.

The Logan County Medical Society has elected the following officers for 1908: President, W. S. Phillips, Belle Center; vice-president, Carrie Richeson, Bellefontaine; secretary, F. B. Kaylor, Bellefontaine; treasurer, W. G. Stinchcomb, Bellefontaine; committee for preparing program for 1908, B. S. Leonard (West Liberty), R. C. McNeil (Belle Center), A. J. McCracken (Bellefontaine).

The following very interesting papers were read: "Treatment of Pleurisy with Effusion," R. C. McNeil, Belle Center; "Treatment of Empyema," W. W. Hamer.

The following are the officers for the ensuing year of Seneca County Medical Society: President, E. H. Porter, Tiffin; Vice President, E. L. Overholt, Fostoria; Treasurer, H. G. Gibbon, Tiffin; Secretary, F. D. West.

The society held their regular monthly meeting at the Auditorium last night. The following papers were read and discussed by the members present: "Diphtheria, the Most Frequent Complications and Treatment," F. D. West; "Diarrhea in Infants, Experience in and Treatment Of," N. C. Miller, Fostoria.

At a previous meeting of the society the following resolutions were unanimously adopted:

Whereas, The name of J. B. Foraker is announced as a candidate for the presidential nomination; therefore, be it

Resolved, That the Seneca County Medical Society does not endorse his candidacy and, if nominated, will oppose to its full power his election.

FOURTH DISTRICT

The Putnam County Medical Society held a meeting December 5.

L. A. Levison, of Toledo, addressed the meeting on "Diabetes and Diabetic Therapy." Dr. Levison said in part that there were few diseases which have so successfully resisted final solution and few in which the underlying changes are so inconstant. The early history of diabetes was briefly traced from the time when the Indian physicians of the seventh century recognized that certain urines tasted sweet.

The underlying facts and theories of carbohydrate metabolism were considered. The problem revolves in great part around the liver, and there are two views that are held concerning the fate of the glycogen—that of Bernard, who believes that the glycogen is converted during life by a ferment into sugar, and that of Pavy, who believes that the glycogen is transformed into other substances besides sugar.

The difference between glycosuria and diabetes was then taken up. The glycosurias were de-

scribed resulting from (a) diabetic puncture, (b) extirpation of the pancreas, (c) drug administration, such as phloridzin, thyroid extract, adrenalin, etc.

Dr. Levison said that it may be laid down as a general rule that all continuous glycosurias are diabetic. There is a fair way to distinguish non-diabetic from diabetic glycosuria in the administration of 100 grains glucose to the patient and determining his sugar tolerance. This is found in practically all true diabetics.

The association of diabetes with definite pathologic lesions in the pancreas and elsewhere was then taken up.

Taking up the therapy, the general rules to be considered in planning diet were discussed. The tolerance for carbohydrates and proteids were described and their method of determination. If bread is not allowed, some substitute must be found, and some of these were mentioned, such as oatmeal bread, gluten, etc. The "oatmeal cure" was discussed and its indications. It is of no advantage in early cases.

The acetone bodies were considered in detail, and some of the conditions in which they occur aside from diabetes were mentioned. These are recurrent vomiting in children, pernicious vomiting of pregnancy, fevers, rectal feeding, digestive disturbances, etc.

The treatment of the complications were considered as impending and actual coma, the disturbances of digestion, pruritis, etc.

Discussion.—C. O. Beardsley, Ottawa, reported a case which he has apparently cured with glycerin extracts of the liver and pancreas. Drs. Reed, Beggs and others discussed the paper.

"Ectopic Gestation," C. N. Smith, of Toledo. The essayist said that it was not the object of his paper to go into a scientific and complete discussion of pathology, but to consider some practical points in diagnosis. He believed that if the practitioner waited for the classic symptoms described in all text-books, such as hemorrhage, sudden sharp pain, shock and collapse, that the majority of the cases would go unrecognized. These classic symptoms he believes to be the exception rather than the rule. He described a series of cases observed by him, in which competent physicians had failed to make a diagnosis because the symptoms were not the classic ones. These cases were described in detail, with the emphasis upon the diagnostic points.

He said that cases of ectopic gestation often occur in women in which there had been no suspicion that the reproductive organs were diseased. The treatment was discussed as being purely surgical.

Discussion by Drs. Tupper, Beardsley, Jacobson, McClung and others.

J. H. Jacobson, of Toledo, gave the annual councilor's address. He spoke of the growth of the Putnam County Medical Society, having a membership of thirty-six out of forty physicians. The legislative work of the committee on public policy and legislation was detailed.

Dr. Beardsley, of Ottawa, presented a case for diagnosis.

Following this the election of officers for 1908 took place and resulted as follows: President, G. S. Wilcox, Columbus Grove; vice-president, J. F. Ockuly, Ottoville; treasurer, J. C. McClung, Leipsic; secretary, C. O. Beardsley, Ottawa; censors, A. L. Paul, Ottawa; H. A. Lewis, Continental; H. H. Sink, Columbus Grove.

The Society also voted to pay \$15 to the legislative fund.

The Academy of Medicine of Toledo and Lucas County met December 6. Albert F. McVety spoke on the subject of "The Fraudulent Advertisements and Their Suppression." He read many extracts from writings upon this subject and said that it is time that physicians exerted their organized influence against these advertisements. He mentioned the fact that there was nothing more harmful and nefarious than the claims advertisers made, and the results were often pathetic.

In the discussion S. S. Thorne condemned the family medical book. These do inestimable harm, and physicians of high standing (several were named) who recommended these works to the public should be criticized.

C. W. Moots, representing the Toledo Milk Commission, spoke of the work being accomplished and exhibited a hygienic milk bottle made from paper, which would hereafter be used.

Martin Stamm, of Fremont, was the guest of the Society and read a paper upon "Carcinoma of the Uterus."

These neoplasms were first classified and described pathologically by the essayist, who continued: The tumor may arise from the epithelium of any part of the uterus, although cancer of the body is comparatively rare. The etiology of cancer is still a matter of speculation. Many so-called organisms have been described, but we are not much nearer the final solution, although much of this experimental work is fascinating and convincing. Traumatic conditions, inflammations and erosions often precede cancerous development.

The symptoms usually appear unfortunately after the disease has made considerable progress. The bloody discharge usually first attracts atten-

tion. Pain is a late symptom and not of much importance.

Diagnosis is usually not difficult. At first, cancer may have to be differentiated from inflammatory hypertrophy, ectopion and retention cysts, but these can easily be distinguished.

Prognosis is very bad unless the growth can be early removed. The hopeful expectations entertained a few years ago by surgeons in regard to radical operations through the vaginal or abdominal route have with some changed into direst pessimism. Experience has shown that after operation patients die more often from local continuance of the growth than from widespread glandular metastasis. The opinions of Ries, Peiser, Wertheim, Cullen, Winter and others were given.

Treatment.—Surgery is the only hope, but the outlook is not glowing. The difficulty is to get the cases early enough. Statistics of the ravages made by this disease were given. The efforts of Dührssen to enlighten and educate the public were emphasized, and it is believed that visible results from this have already been attained. Something must be done to combat the charlatan and Christian Scientist. Not only the public, but the general practitioner should be educated to make earlier diagnoses. The older methods of treatment were described, and then the more radical operations. The indications of the radical operation were outlined, and likewise when to use palliative measures. The procedure of Küstner in carrying off the fetid secretions through the rectum was described. The question of preference of the vaginal or abdominal route is still agitated. Statistics of each method were given. The operative procedures of Wertheim, Werder and Byrne were described. In conclusion Dr. Stamm said that he did not believe that much better results would be obtained without improvement in technique. The chief hope was in the education of the public to an earlier operation.

J. H. Jacobson opened the discussion. He spoke of the importance of cervical lacerations as etiological factors and said more attention should be given to the repair of these conditions.

C. N. Smith argued for the education of the public through lectures and pamphlets.

Dr. Thorne believed that the family physician required education upon this point as well as the public.

Dr. Watson reported a case well eight years after operation.

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Toledo and Lucas Coun-

ty met November 29. The general subject was "Conjunctivitis."

A. L. Steinfeld read a paper on "The Bacteriology and Etiology of Conjunctivitis." He said in part that it is conceded that all forms of conjunctival inflammation were bacterial in origin, even though the specific organism could not be isolated. He spoke of the various methods of infection, such as direct contact, dust, droplet infection, etc. The organisms affecting the eye were then classified and described. The gonococcus is the cause of from 50 to 70 per cent. of ophthalmia neonatorum. He spoke of the means and prevention of infection and gave the differential diagnosis between other similar bacteria.

The pneumococcus is also not an uncommon cause of eye infections. It is a dust carried organism, and a certain predisposition is required.

The staphylococci and streptococci were considered.

The Koch-Week's bacillus is one of the commonest causes of acute coryza. Infection is caused by direct contact and by droplet infection.

The Mosax Axenfeld bacillus was described in detail.

The diphtheria bacilli may be found in the healthy conjunctiva. It produces a membranous conjunctivitis. The organism retains its virulence for a long time, and an accurate diagnosis is essential to prevent the spread of infection.

Francis W. Alter read a paper upon "Gonorrhœal Conjunctivitis." He said that the contagious element in this form of conjunctivitis was the gonococcus of Neisser. This organism was described in detail. The methods of transmission were spoken of and the responsibility of the general practitioner in properly cautioning gonorrhœa patients. Gonorrhœal conjunctivitis can be divided into the (1) adult purulent form and (2) ophthalmia neonatorum.

The condition begins with a period of infiltration after a short stage of incubation, lasting from a few hours to several days. Swelling and redness of the lids occur, with œdema of the ocular conjunctiva. The eye is tender; there is fever and some constitutional disturbance. This first stage, which lasts a day or two, is followed by the second stage, which is characterized by a purulent discharge. The swelling and tenderness diminish. The course of the disease varies considerably in severity. Mild cases may return to normal in several weeks, and severe cases may give occasion to the gravest complications. Corneal ulcerations may form. These may perforate and be followed by cicatrization, with possible incarceration of the

iris staphyloma. Pano-ophthalmitis may occur. The prognosis is always grave.

Treatment is both prophylactic and curative. The physician and nurse must both protect themselves during treatment of cases. The protection of the patient's non-affected eye was considered. The various methods of treatment were discussed in detail. The continuous iced compress, with cleansing and removing of secretion. The use of antiseptic solutions was described. If complications occur, the oculist is taxed to his utmost to preserve vision.

Frank Jacobi read a paper on "Mixed Types of Conjunctivitis." Two general classifications were made—(1) those forms in which a specific cause had been determined and (2) those forms in which a specific cause has not been determined. The former included (a) acute contagious conjunctivitis, (b) sub-acute contagious conjunctivitis, (c) gonorrhœal, (d) croupous, (e) diphtheritic, (f) syphilis, (g) tubercular, (h) leprosy. The latter includes (a) ———, (b) atrophy, (c) gout, (d) amyloid and others.

Each of these types were separately considered. They were discussed from the etiologic, symptomatologic and therapeutic standpoints.

Conjunctivitis in general is characterized by increased and altered secretions from the surface of the conjunctiva, distressing symptoms and transient or permanent change in the membrane. He spoke of the necessity of making correct diagnosis in these cases, as many are atypical and may lead to infection of others.

Walter Snyder spoke upon "Follicular Conjunctivitis and Trachoma."

The Pathologic Section of the Academy of Medicine of Toledo and Lucas County met December 13. The general subject was "Syphilis."

"The Etiology of Syphilis," W. G. Dice. The long endeavor to find a cause for syphilis was reviewed, and the various organisms that have been at different times described were mentioned. The spirochete pallida of Schaudin and Hoffmann was described in detail. This organism was discovered in 1904. It is found constantly in syphilitic lesions and has not been isolated from lesions of a non-syphilitic nature. Another organism which is more or less constantly associated is the so-called spirochete refringens. The true spirochete pallida can be found in glands, chancres, candylo-mata, blood, lungs, liver and other tissues. It is difficult to see in the fresh state with the ordinary microscope and is refractory to stains. It is from four to fourteen microns long and has from three to twelve curves, which are quite regular, thus dis-

tinguishing it from the spirochete *refringens*. The organism has pointed ends and is actively motile.

The pathologic changes produced in the body by syphilis were then taken up. The changes in the arteries, connective tissue generally, liver, brain and other places were described. The differentiation between gumma and tubercle was considered.

"Methods of Infection and Heredity," R. S. Walker. Statistics were given as to the prevalence of syphilis in Paris and other places. The localization of the initial lesions was discussed, and, although the majority of inoculations take place upon the genitals, the percentage of lesions occurring upon other parts of the body is high. The initial lesion may occur anywhere from the top of the head to the sole of the foot.

Among the means of infection beside the usual methods are intercourse by unnatural methods, barber shop infection use of soiled towels, combs, brushes, etc., kissing, exposure of physicians and nurses, use of smokers' articles and many other methods. Dr. Walker took up in detail the hereditary aspects of the disease. He showed how the disease can be transmitted from parent to child and spoke of the idiocy, imbecility and insanity resulting therefrom. The class of women who propagate syphilis the most, fortunately, do not bear children.

"Syphilis with Its Late Manifestations Upon the Part of the Nervous System," Louis Miller. He took up thrombosis, embolism, tumors and other lesions of the nervous system and showed that there was nothing pathognomonic or specific in the lesions of syphilis, as regards the symptoms which they produce. The symptoms depend upon the location and size of the lesion more than upon its specific nature.

The nature of the lesion in the tabes was taken up in full. The theory that the degeneration of the posterior columns of the cord was due to an endarteritis affecting the bloody supply of the posterior roots was discussed, likewise the possibility of the degeneration being due to a toxin. The relation of syphilis to tabes was discussed.

The discussion of these papers was participated in by Drs. Brand, Moots, Patrick, Kellar, Snyder, Dice, North, Levison and others.

Dr. Levison demonstrated microscopical preparations showing the spirochete pallida.

The Paulding County Medical Society met in regular session on December 12, and the reports indicate a vigorous and healthy state of the society.

The post-graduate work is being carried out,

and arouses wide interest. Continuing the work along these lines, a paper on the "Physiology of the Lungs" was read by L. R. Fast, and a free discussion followed, participated in by all present.

The election of officers resulted as follows: President, A. H. Mouser, Latty; Secretary, E. A. Clark, Paulding.

The Sandusky County Medical Society met December 5 at Fremont. O. H. Thomas of Fremont read a paper upon "Pertussis." He described the disease, spoke of its etiology, pathology, complications and treatment. Discussion—Drs. Vermilya, Ickes, Stamm, Stewart, Meek, Stevens, Phillips.

The Defiance County Medical Society met December 11. The meeting was given over to clinical reports and to a discussion concerning methods of improving the work of the society in 1908.

Thomas Hubbard, of Toledo, read a paper on "Primary Nasal Diphtheria." The essayist drew attention to the fact that the widespread use of anti-toxin in cases of doubtful character had led to carelessness in diagnosis, resulting in the overlooking of many cases of primary nasal diphtheria, and continued in part as follows: As compared with ordinary faucial diphtheria, nasal diphtheria is always a sub-acute or chronic process, and the elements are of toxicity and comparatively slight. Diagnosis may often be difficult or impossible without bacteriological tests, for, though there may be in others only a hyperemia, with a catarrhal flux, in the former the false membrane may fill one or both nasal fossal with fibrinous casts, with which condition is associated a watery acid muco-purulent discharge. In the second type there is merely an inflammation of the mucous membrane, but with the same copious acid watery secretion. In both, the nostrils and upper lip are usually excoriated, and altered blood pigment may give a reddish or brownish tint to the discharge. The fibrinous type is more common among older children and not rarely in young adults. The catarrhal is more characteristic of infants.

The disease is in a degree self-limited, but may run a course of several weeks, and shows a tendency to reinjection and relapse; the toxicity is relatively slight, and the mortality is low save in young infants. Extension secondarily to the fauces is rare; in spite of the apparent favoring circumstances of drainage, etc., one naris may be affected to the exclusion of the other.

Culture tests show frequently pure growths of

the Klebs-Laeffler bacillus, which appear of lessened virulence, but capable of inflicting susceptible children with virulent types of faucial diphtheria.

These case sare sources of widespread infection because of difficulty of recognizing and supervising them.

Diagnosis.—Simple acute coryza is the mask behind which primary nasal diphtheria invades the ranks of infancy and childhood. Slight fever for a few days, malaise, anorexia, restlessness at night due partly to nasal obstruction, are the chief symptoms and are not distinctive. A watery acid purulent discharge from one or both nostrils should always excite suspicion and lead to the examination for false membrane or for the specific organism. Paralysis may follow the disease, as in ordinary faucial diphtheria.

He quoted J. L. Morse at some length on the manifestations of this type of diphtheria in infants and then reported illustrated cases. In one family of seven children four cases of laryngeal diphtheria occurred. Investigation showed a lad of twelve with an excoriated upper lip from an irritating nasal discharge. He had been in this condition ten days previously; unquarantined; no other symptoms; attending school. Examination showed a small deposit of false membrane in septum, and cultures demonstrated Klebs-Loeffler bacilli. Prompt anti-toxin was used on all the children, and all recovered.

In another case of a child brought to the author for nasal obstruction, otherwise apparently in good health, examination showed large plaques of membrane on both sides of septum. Anti-toxin was advised at once. Within forty-eight hours two other members of the family developed severe faucial diphtheria.

Several cases have been brought to the author for supposed foreign bodies in the nose.

He stated that not infrequently the disease runs its course unrecognized until telltale sequelæ—as paralysis, especially of the throat and muscle—appear, and illustrated with case reports.

The treatment is essentially the same as for faucial diphtheria, save that the dose of anti-toxin is relatively much smaller. One should avoid the temptation to use antiseptics, douchings and the like, as all such are futile, if not positively harmful. It should always be borne in mind that in these cases the bacilli are retained much longer than in the faucial type, and therefore the period of isolation should be longer.

The Medical Section of the Academy of Medicine of Toledo and Lucas County met December 20.

Jefferson F. Ohlinger reported a case of "Hemophilia." He said that he delivered a normal female child upon December 13, and upon the following day, the child began to bleed from the nose, mouth, rectum and stomach. Bright blood oozed steadily and continued for two days, at the end of which time the child was completely exsanguinated and died. Close inquiry from the family failed to elicit any history that would have any bearing on the case. A post-mortem was not obtained. Dr. Ohlinger emphasized two points:

(1) The remarkable early development of the disease, and

(2) The absence of any history pointing to a heredity transmission of the disease.

The general subject of the evening was "Syphilis."

Edwin D. Tucker read a paper upon the "Symptomatology and Diagnosis of Syphilis." He said that there is no other disease in medicine that offers today the interest of study and research as syphilis. The disease may be hereditary or acquired. Dr. Tucker emphasized the difficulty of making a diagnosis from the initial lesion. This is dangerous, and even when the chancre is not specific, no one can tell that a true chancre may not develop upon the same base. It is always safer to await the appearance of the secondary lesions. The varieties of lesions which the syphilderm may take are legion. There is no skin disease which it may not simulate:

- (1) Miliary papule.
- (2) Flat papule.
- (3) Papular squamous.
- (4) Pustular.
- (5) Rupia.
- (6) Bullous.
- (7) Tubercular.

The symptoms and signs of the tertiary form were described in detail. Gummata were seen upon any part of the body.

L. A. Levison read a paper upon "The Serum Diagnosis of Syphilis." He said in part: The method is based upon the binding of the complement. The reaction was first described by A. Wasserman. Whenever bacterial organisms are introduced into an animal body, anti-bodies are produced and these anti-bodies have a specific. It is upon the specific nature of these anti-bodies that the test depends. Any substance that is capable of producing an anti-body is called an antigen. In the test, that antigen consists of some certain syphilitic substance, such as the liver of

syphilitic fœtus. This is finely divided and shaken up with salt solution until an extract is formed.

The anti-bodies are present in the blood serum of the patient to be tested. Cerebro spinal fluid may also be used.

In the above two substances or factors there is added in the test tube the so-called hemolytic system. This is consistent of three parts:

(1) A hemolytic serum which has been produced by intervenous injection of red blood cells of an animal of a different species.

(2) A suspension of washed red blood cells.

(3) A complement which is present in the blood serum of any animal.

When these five elements or factors are mixed incubated, hemolysis will or will not occur, depending on whether the complement has not or has been "bound" by the syphilitic factors. The reactions has great possibilities, but until his technic is simplified, it is not practicable in private practice.

"Ocular Manifestations of Syphilis," Walter II Snyder. He said no organ in the body was subject to more severe manifestations of syphilis than the eye. The disease may be acquired or congenital. It is hardly a rarity to have chancres on the lids or conjunctiva or even the cornea. These lesions should be differentiated from epithelial cancers.

"Syphilitic iritis" is an important and common complication. It is usually unilateral. Three-fourths of all cases of iritis are syphilitic. The percentage of syphilitics, who have had eye involvement varies from 0.42% to 16.5% with different authorities. Dr. Snyder gave statistics showing the frequency of eye trouble among syphilitics and the proportion of cases of blindness due to the same cause.

Syphilis spares no part of the eye. "The course," pathology and results of specific iritis were described in full. Irido-cyclitis was described. The conditions known as arteritis syphilitica was discussed, and its relation to the eye changes in tabes, etc. Chorio retinitis, opacities of the vitreous, hemorrhages, neuritis, paralysis of ocular muscles, gummatous invasion of the orbital bones, cerebral arteritis obliterans are some of the many conditions which may result from acquired syphilis, and concern the oculist.

Congenital or inherited syphilis also produces eye lesions. The most common is "Diffuse Intestinal Keratitis." This may be the first and sole symptom of inherited syphilis. As to the treatment, iritis recovers as quickly without treatment as with paralysis requires electricity and specific treatment. Dr. Snyder emphasized the danger

of pushing specific medication in nerve involvements, as this causes rapid loss of the remaining vision. In the congenital cases, the eye is a good index to nutrition.

"Treatment of Syphilis," Walter Brand. Dr. Brand first spoke of the abortive treatment by excision of the chancres. The cures by this method were probably chancroids, not chancres. The infection has been widely spread by the time the change appears. Another form of abortive treatment is to administer specific medication immediately upon appearance of chancre. This, too is futile unless treatment is continued for the usual period of time.

The necessity of a positive diagnosis was emphasized. Dr. Brand sums up abortive or preventive treatment by saying that we are really treating before we have anything to treat. Before instituting treatment, first prepare the mouth; mercury is the most reliable remedy, and its doses must not be so attenuated as to emasculate it; it must not be administered with too lavish a hand. The various methods are:

(1) The expectant or opportunists.

(3) The interrupted.

The first method only results in the disappearance of the first manifestations and the patient almost always reappears with tertiary lesions.

The continuous method or the tonic method is the use of protiodid of mercury by the mouth. This was described in detail. The interrupted method of Fournier was also described in full. Dr. Brand uses a combination of the two latter methods. Mercury may be given by:

(1) Inunction.

(2) Ingestion.

(3) Injection.

(4) Intra-venous.

The disadvantages of the inunction method are that it is dirty, tedious and produces dermatitis. The ingestion method is the one in common use.

The injection is useful to rapidly mercurialize the patient. Its faults are the pain, irritation danger of infection or phlebitis: Dr. Brand prefers calomel or the gray oil.

The intravenous methods was described. It will never be so generally used as the other methods.

FIFTH DISTRICT

The fifty-first regular meeting of the Academy of Medicine of Cleveland met on October 18. Robert H. Babcock of Chicago was the guest of the evening, and presented an address on the "Conservation of the Potential Integrity of the Myocardium." The speaker opened with the

statement that however we may regard the matter, whether from the standpoint of pathology or clinical medicine, we can not but be impressed by the remarkable tolerance, nay, adjustment shown by the heart to diseased conditions within itself. After citing the compensatory hypertrophy of the heart in aortic insufficiency and even stenosis of three ostia, such as he had observed, in illustration of this proposition, he then considered the reasons for this tolerance on the part of the organ in chronic valvular disease and the causes that lead to its loss of potential, that is, functional power. These causes may be divided into two categories, namely, those residing in the heart itself, and those acting from without. Among the intrinsic ones may be chronic degeneration of the myocardium proper or of the bundle of conducting fibres so carefully studied and described by Aschoff and Tawara in cases of heart-block. Although these intrinsic causes are beyond our control, still much can be accomplished in conserving the potential integrity of the heart muscle. The speaker then discussed the effects of heart strain in cases of valvular disease, and expressed the opinion that in order to protect the heart from injurious influences which lead to disastrous loss of compensation, when the heart would be able to bear its burden successfully if not subjected to extrinsic influences, every person having a valvular lesion no matter how well compensated, should submit himself to a physician for a periodic inspection, the same as is done with a steam engine, and that every physician should feel it his duty to instruct such a patient concerning all those conditions of disease or strain which in any way may tend to still further damage the functional capacity, that is, the potential integrity of the myocardium.

Dr. Babcock next turned his attention to the consideration of acute endocarditis and illustrated his contention that even here the outcome depended upon the potential power of the heart muscle by the familiar example of inflammation of the mitral valve. The injury to the valve may not be so serious as the associated myocarditis, which by causing dilatation intensifies the effects of the endocarditis. This is proven by the fact that the apex systolic murmur replaces the first sound abruptly and there are the sighs of dilatation, as well as by the observation that months of treatment by rest and drugs the bruit largely disappears and the first tone again becomes audible. Consequently he believed that in all cases of acute endocarditis the physician should insist upon physical rest for a far longer time than is customary. Since by so doing he

may obtain a far greater degree of compensation than at first seemed likely.

The next class of diseases considered was that of chronic myocarditis in its various clinical manifestations. The chief element in the production of myocardial incompetence was believed to be heart-strain, both acute and chronic. The former, seen most commonly in the young, may be recovered from after a period of absolute physical rest when cardiac dilatation has resulted from strain, or, in cases showing strain only by tachycardia and irritability, after cessation of the injurious sport or occupation, together with medical treatment. In the elderly, whose heart muscle is presumably no longer sound, acute strain is often most disastrous, as was exemplified by two briefly described cases, and therefore physicians should warn their patients of middle age against acts of indiscretion. Chronic heart strain may be observed in men of middle age and often portly build, who, beginning to notice breathlessness on ordinary exertion or palpitation, are found to have abnormally high blood-pressure and signs of cardiac enlargement. For such as these the doctor has seen most gratifying restoration of potential integrity follow a judicious course of medical gymnastics for the giving of which, fortunately, admirable means exist in Chicago.

As regard the conservation of the myocardium in cases of chronic nephritis especial emphasis was laid upon (1) the restriction of the daily intake of fluids, including of course an absolute milk diet, lest the absorption into the vessels of a burdensome quantity of liquid should overstrain the heart; and when the heart fails in these cases the patient's fate is sealed. (2) The reduction by cathartics and other means of excessive blood-pressure, since when this is too high for the resistance of the heart muscle dilatation acts in, and with the onset of dilatation the inevitable termination has begun. (3) The regulation of the dietary so as to prevent intestinal fermentation and the injurious effects of intestinal toxins on the kidneys and blood-pressure. (4) The avoidance of acute and chronic overstrain of the already burdened left ventricle. A case was then narrated briefly which illustrated the folly of neglecting these manifest precautions.

The importance of conserving the potential integrity of the fatty heart was next considered. In many cases the so-called fatty heart is in reality nothing more or less than the cardiac incompetence of the obese, and therefore the speaker dwelt on the necessity of fat people

avoiding acute heart-strain, and likewise that chronic heart-strain which comes in time from the still further accumulation of adipose tissue. Danger of acute over-strain of the heart is especially imminent in case of those fat and muscular individuals who by reason of their muscular strength pride themselves on their ability and endurance.

After dwelling rather briefly upon the remarkable activity displayed by persons with the signs and symptoms of the so-called senile heart and the untoward effect of often trivial influences, such as worry, sorrow, acute bronchitis, indigestion and seemingly trifling infections was emphasized and physicians were urged to regard themselves as the curators of the myocardial integrity of these old persons and not to think their whole duty was fulfilled when they ministered to them in hours of actual illness.

Finally the effect of acute and chronic infections was discussed in their power of destroying the structural integrity as well as the potential capacity of the heart muscle. The disastrous effects of the acute fevers was pointed out and the necessity of careful study of the heart in these infections and after recovery of a prolonged convalescence, lest an acute myocarditis initiate a process which in after years shows itself as a chronic degeneration of coronaries and myocardium.

Lastly the association of cardiac incompetence with attacks of hepatic colic and chronic cholithiasis was discussed. Some cases were described which in the doctor's opinion bore out his contention that in not a few instances the loss of cardiac competence could be traced to disease of the gall bladder, shown either by biliary colic or by chronic infection. He mentioned also the connection sometimes seen between functional disturbance of the heart and diseases of the appendix and female pelvic organs. He advised, therefore, the removal of all such disturbing factors by operative intervention rather than by the slow and doubtful medicinal measures often preferred by both physicians and laity. In a word, the whole address was an effort to prove that a damaged heart may yet be a very good pump if only given a fair chance.

C. F. Hoover (opening discussion): I have very little in a critical way to say of Dr. Babcock's paper, and anything I have to say will be to parallel what he has already said. I wish to relate one case strikingly like the cases he describes of very sudden, acute apparent failure of the myocardium. I remember one instance of a man who seemed to be in perfect health so far as examination by a physician could determine, and this man on his return from the Pacific coast

stopped in Colorado and undertook to climb a high mountain. After he climbed the mountain he found he was short of breath. The doctor found he had an enlarged left heart, with signs of insufficiency. There was no sign of aortic insufficiency when he left on his trip. On his return he presented every appearance of insufficiency of his aortic valves, although he had no elevation in temperature. It was believed at the time that the man probably had a disease of the aortic valves. We found he had, at autopsy, a dilated aortic ring. His mountain climbing, with the increased pressure, caused dilation at the aortic ring, from which he never recovered. The man really died from aortic insufficiency, which was not due to disease of the valves, but which was brought on from excessive exercise, with a diseased aortic orifice and diseased myocardium.

We speak of conservation of the potential integrity of the heart, but the term itself sounds more like a veritable tangible term than really is the case. Just what the potential energy is or how we are to estimate it is not a simple matter. For instance, we take every means to estimate the blood distribution and the blood flow. We have two patients each with a systolic pressure of 130. Both will have sound arteries and the same characteristics as to pulse, no evidence of any contraction in the vaso-motor distribution and no evidence of vaso-motor excitation. And yet one will be capable of doing athletic feats and the other not able to get out of bed and walk the ward without growing short of breath. So we have no means of estimating the reserve energy of the heart. The only way is to see how the heart behaves after exercise.

Christian Sihler: There is an article by Harper, published in 1903, in which he points out this fact—that the peripheral organs—i. e., the arteries and capillaries—have probably very much to do in aiding the circulation, and that we, if we can put this idea into practical use, can often help the patients if we know how to help along and tone up the peripheral circulation. I would like to know how digitalis acts. It never got clear to me until I once saw my twins in a rocking chair. One stuck his foot out one way, and the other in the opposite direction, and the chair did not move. Now you know how digitalis acts. I don't think it is a heart tonic at all. It is a sort of poison. * * * That little bit of poison we put into the circulation won't produce any tonic effect. That is nonsense.

J. P. Sawyer: I think it is a matter of a great deal of interest to hear one who has achieved such fame in this work speak so positively along this line. I was very glad to hear him give so much emphasis to the statement of causes which tend to produce cardiac degeneration in those organs apparently remote from the center of cardio-vascular activity. I would speak of that of the gall bladder being due to the physiological action of the reabsorbed bile. Its toxic effect upon the cardiac muscle is no less than upon secreting cells elsewhere.

Of all the conditions which the physician has to meet I think there are none of greater importance than those of heart strain, sudden heart failure and the means of prevention. We need to understand the great tendency toward this failure

in elderly people. This morning I lost a case by death of a man who represented a great class of men who think they must yearly turn out on such days as Decoration Day. They will go along on a fairly even balance with moderate exercise until some occasion on which they make an extra exertion, as did this man and another man in Medina, both of whom succumbed to dilatation of the heart, weakened circulation, dyspnoea, with the phenomena of chronic myocarditis. It is the duty of physicians to warn these people in whom these changes have developed, in whom we reckon that the balance is nearly destroyed, that they must be particular to guard against the slightest extra exertion. A ride of a few thousand feet above sea level may overstrain the heart, but we have about us every day some little matters which break down the health of many people in their later years.

Dr. Lichty: Unfortunately we cannot follow the course of as many cases along this line as we would like, and we do not just exactly see what the changes are that have taken place. I have had the good fortune to see a case in which there were striking demonstrations of the changes in the heart muscle. This patient lived in the city, and it was one of his peculiarities to see how fast he could climb a flight of stone steps. I had the chance to watch his health for great irregularity of the pulse and cardiac action, and I made a diagnosis of mitral lesion, stenosis with bleeding. * * * This man took chlorid of calcium and chlorid of silver in large quantities, and he realized the benefits derived from this treatment. Small doses of digitalis would control his heart, and it was very interesting to take the stethoscope and see the changes that would take place after this kind of treatment. After five or ten days or two or three weeks in bed, compensation would be fully restored, and he would go back to the stone steps again. * * * This case is typical of a number of cases that I have seen. In a great number of these cases I am sure that if the physician had been on his guard early and guided the course of the patient, and if he had possibly held more to the diatetic and hydrotherapy in the management of the case rather than any purely medical treatment, the result would have been different. I quite agree as to the value of prevention, proper exercise and proper rest in contrast to that of medicine. How often we are disappointed in the medical agent!

J. J. R. Macleod: This is scarcely in my line. There are two things in connection with this paper that have interested me very much. First, the title of the paper. I think the title is a very fortunate one, and it coincides with the one used in physiology, known as "the factor of safety." It is the term, too, "the factor of safety," which is so commonly used in the English language and also in the French. It was, in fact, the title of the paper that attracted me here this evening.

The other thing that I don't quite understand is what is meant by toxemia. Perhaps Dr. Sawyer's explanation in those cases of gall bladder disease is a much more reasonable one than for us to assume that toxins are absorbed in the blood. This is to me a very difficult problem.

Dr. Rogers: I hardly feel adequate to a discussion of the paper. It has been a privilege to

me to hear an address of this class from a man of so high a standing in the profession. There is one thing which has stayed with me since I read DeCosta's "A Clinical Work on the Heart," and that is, as soon as a man becomes conscious that he has a heart there is something wrong. It is a fact that a great many people go on with a badly diseased heart without being conscious of it for a long time, while others come to us complaining of the heart when really pathologically or from the symptomatology we can find very little wrong with it. When we stop to think of the heart as a physical organ, it is not strange that it so often becomes diseased; the strange part is that it goes so long without trouble. Yet we frequently find diseases of the heart in young people, and arteries that would do credit to a man of seventy not infrequently found in people of thirty. I don't mean to infer that this is a common thing, but it seems to me that this can be explained by this fact—that we are not made of the same india rubber. There is a difference in the tissue elements which probably plays some part in the production of these changes. * * *

The thought comes to me, is it not possible that many of these conditions of abdominal disease, especially of the gall bladder and their relation to the heart, may be explained in this way. We know that the bile adds very materially the pancreas. Many of these people who begin to show trouble with the heart show digestive disturbances at the same time, and we know that often these persons who show torpid liver or hepatic insufficiency or cardiac disease do not take care of their diet well. I simply wish to put this forward as my own view of the thing, that while many of these cases are not directly toxic that they may be indirectly toxic as a result of the bile from the intestine.

Dr. Aldrich: Nearly all of the gentlemen who have discussed this subject have referred to the fact that almost every heart that gave any evidence of disturbed function must necessarily be a diseased heart, and when a man found he had a heart it was usually a diseased heart. I think we ought not to allow ourselves to look upon that so seriously, because there are so many people who have that organ consciousness. They realize that they have hearts or they may realize that they have some other organs in the body. This peculiar organ consciousness should be carefully separated from those cases in which we would consider a functional disturbance or a disturbance severe enough to indicate a structural disorder.

Dr. Rosewater: We have learned a great deal from the remarks of Dr. Babcock, whom we all think so much of and have read so much about. It seems to me from the remarks made tonight that we have no use for drugs for these affections. I think it is the use of the drug and not the drug that is wrong. A great deal can be done with drugs used in their proper way, knowing when we should use them and when we should keep our hands off. Dr. Babcock himself asserts that constipation should be combatted in these cases, and surely the best way in an emergency is by the aid of drugs. We can do this by mechanical means and diet if we have time, but in a serious affection we cannot wait for advice to the patient to diet himself or to drink so much water at

night and in the morning, but we must act at once by the aid of cathartics. * * *

The obstruction of the circulation in the bowel can be very easily relieved by means of iodine. I had occasion to try this in a patient that came to me with a history of total deafness. She could not hear and could not see, or at least discern what she saw. Examination revealed that the heart was in good condition and the pulse weak, and I considered we were dealing with a constipation and a poor circulation. I gave her iodine, and immediately she cleared up with the aid of cathartics. Must I believe there was no value in this case? I gave nothing else.

Dr. Babcock (closing discussion): I am very much pleased with the discussion this evening. I am especially interested in the suggestions concerning the mode of causation of cardiac disturbance or myocardial incompetency in connection with gall bladder disease. I think I was careful not to express how it was done. I spoke of the association of this in connection with chronic gall bladder disease. The French have laid much stress on the poisonous influence of the bile in cardiac disease. In the most of these they have not shown traces of bile in the urine. Still, it is not clear to my mind that the circulation of bile in the blood is the toxic influence. You have all known probably of cases showing the development of cardiac murmurs in connection with attacks of biliary colic. I am certain they are not accidental. They are really dilatation murmurs. I am not sure how this is brought about. It may be because of some influence on the splanchnic. There may be a chronic pus infection in some of these cases. A colleague related to me a very instructive case of a patient who had an acute gall bladder infection, and during the few days it was acute, he had a very marked cardiac murmur, which disappeared on the subsidence of the infection.

As to the possibility of estimating the potential strength of the heart, I agree with Dr. Hoover that our estimation is very unsatisfactory. I am satisfied that many times in suspected cases we can form a pretty fair estimation by having the patient go through some slight exercise in the office.

The thirty-first regular meeting of the Ophthalmological and Oto-Laryngological Section of the Cleveland Academy of Medicine was held Friday, November 22, 1907, at 8 p. m., at the Cleveland Medical Library. The following program was presented:

"Address," George F. Suker, M. D.; "Report of Case of Paralysis of the Accommodation," C. C. Stuart, M. D.; "Report of Cases," A. H. Marvin, M. D.

The annual election of officers was held at this meeting.

The fifty-second regular meeting of the Academy of Medicine of Cleveland was held at 8 p. m., Friday, November 15, 1907, at the Cleveland Medical Library. The following program was presented:

"A Review of the Coroner's Office," E. C. Houck, M. D.; "Cleveland's Ambulance Service," M. Metzenbaum, M. D.; "Medico-Legal Subjects," R. B. Newcomb, M. D., L. L. B.; "Acute Dilatation of the Stomach and Arterio-Mesenteric Ileus," W. B. Laffer, M. D.

The Lorain County Medical Society met November 2, 1907. Meeting called to order by the President. Minutes of October meeting approved. No cases were presented; one post-mortem specimen. The paper of the evening was presented by Dr. Williamson, the subject being, "Opsonins and the Opsonic Index."

The early history of research, as to the properties of fixed body cells and the phagocytes in the combat of disease was reviewed, the theories of Ehrlich and Metchnikoff explained clearly and the reaction of the blood to the chemical substances taken up as an introduction to the subject of modern interest. The work of Deny's in showing that the blood serum of animals immunized to certain bacteria had little bacterial properties, but that the leucocytes became more phagocytic. Wright was able to show that the blood fluids modify bacteria or render them more ready victims to the action of the phagocytes, therefore concluding that there must be certain substances which chemically unite with the substance of the invading bacteria, and so alter them that they are more readily destroyed by the leucocytes. The process of procedure in preparing vaccines was given, and a comment on the treatment by their use. Considerable discussion brought forth the opinion that as the subject is yet in the experimental stage, the general practitioner had better leave this field of work to the bacteriologists.

Business: A motion was made that the annual meeting of this society be held December 10, 1907, in the Andwur Hotel, Elyria, at 4 p. m., followed by an informal dinner. The chair appointed a committee of three—Drs. Cushing, Monosmith, and Hubbell.

The Trumbull County Medical Society met on November 13, at the Warren City Hospital. C. F. Hoover of Cleveland gave a clinical lecture, having as subjects for his remarks two cases. One was a man with Jacksonian epilepsy and failure of development on right side, resulting from cephalematoma and policephalitis, caused by cranial injury from forceps at birth. The patient's head showed the cranial depression in right parietal region. The second case was one of the senile type of arterio sclerosis in a man of

middle age. In addition to examination of the patients and remarks pertaining directly to the cases, Dr. Hoover gave a very complete resumé of the subject, Arterio Sclerosis, with historical illustrations.

This meeting was the first held at the City Hospital, which was recently completed.

The forty-fourth regular meeting of the Lake County Medical Society was held at 8 p. m. on Monday, November 4, 1907, in the assembly room of the Parmly Hotel, Painesville, Ohio. The program was as follows: "Reports and Presentation of Cases"; "Nomination of Officers for 1908. Committees, Drs. Lowe, Amidon and Merriman"; "Miscellaneous Business"; "Cerebro-Spinal Meningitis," L. W. Ladd, Cleveland, Ohio. Discussion of subjects.

The Huron County Medical Society met in regular session, December, 1907. The following officers were elected for the year 1908:

President, A. L. Osborn, Norwalk; First Vice President, William E. Gill, Norwalk; Second Vice President, M. L. Hindley, Monroeville; Secretary and Treasurer, John A. Sipher, Norwalk, O.; Member of Board of Censors, S. E. Simmons, Norwalk; W. W. Bland, Bellevue, and E. R. Kreider, Monroeville; Delegate to State Meeting, H. R. Dewey, Bellevue; Alternate, R. L. Morse, Norwalk; Member Auxiliary Committee, the Secretary.

A case was reported with the history and symptoms of rabies.

The President called attention to some of the encouraging features of the year's work.

The Erie County Medical Society met November 27 at the courthouse. A communication from Dr. Lower, the councilor, was read in regard to the course of study for next year, and the program committee was requested to report upon it at the next meeting.

It was voted to send \$15 to the legislative fund.

C. R. Knoble read an interesting paper upon "How Anti-toxin is Made." The discussion brought out information about other serums than the diphtheritic. Charles Graefe told of his experience with the early imported diphtheria anti-toxin, when it was used only as a last resort. He has just been in Detroit looking up other serums and exhibited vaccine tubes for determining the opsonic index of individuals. When blood is placed in a test tube and washed with saline solution so that only the white leu-

cocytes are left, they are rendered inactive by the saline, but when serum is added they regain their activity and proceed to devour the bacteria. By experiment, the normal number of bacteria which can be destroyed by leucocytes is determined. If the individual is not too much depressed, inoculations with vaccine will excite the system to great activity, and an anti-toxin is developed which renders the individual immune. The opsonic index is raised. If he is too far below normal, the vaccine sends him down rapidly.

Some twelve years ago Dr. Graefe used fresh serum as a dressing for surgical cases and published his observations in these cases.

J. T. Haynes spoke of the results obtained by the use of Beebe's serum in cases of exophthalmic goiter, which are gratifying.

W. Storey read a communication from Dr. Flexner in regard to the cerebro spinal meningitis serum which he originated and which Dr. Storey used successfully at Castalia in the edemic last spring.

The next meeting is to be held with the lawyers in December.

The annual banquet of the Lorain County Medical Society was held at the Hotel Andwur, Elyria, last evening. The attendance was much better than at any previous affair of the kind.

John Lowman of Cleveland was the speaker of the evening, delivering an address on the most important diseases of the day.

J. W. Clemmer of Columbus delivered one of the interesting addresses of the evening. Dr. Clemmer is the chairman of the committee on public policy and legislation of the Ohio State Medical Society. His address was especially along the line of patent medicines.

Dr. Lower of Cleveland, who is Councilor of the Fifth District, gave a short talk on prominent medical topics. Other members of the county society delivered brief talks on important topics in the medical world of today.

The officers elected for the ensuing year are as follows: President, S. V. Burley, Lorain; Vice President, Charles H. Cushing, Elyria; Secretary, J. B. Donaldson, Lorain; Treasurer, E. Cameron, Lorain.

SIXTH DISTRICT

The first annual banquet of the Richland County Medical Society was held at the Southern Hotel, Wednesday evening, this having been one of the best attended and most interesting gatherings ever held by the society. After the

banquet W. S. Anderson took charge as toastmaster and there followed a number of excellent talks on the subject of the organization of the medical profession. Those who were on the program and who spoke along this line were Edward Remy, Secretary of the Richland County Society; D. W. Peppard, President of the county organization; R. D. Gibson of Youngstown, and J. H. Seiler of Akron, President and Secretary of the Union Medical Association of the Sixth Councilor District of the Ohio State Medical Society.

At a business session the following officers were re-elected for the coming year: D. W. Peppard, President; J. L. Stevens, Vice President; Edward Remy, Secretary and Treasurer; A. H. McCullough, Member Board of Censors; J. M. Burns, Auxiliary Committeeman; J. Lillian McBride, Delegate to State Association.

The regular monthly meeting of the Summit County Medical Society was held December 3. A letter from the State Treasurer was read in which he thanked the Sixth Councilor District for the \$100 forwarded to the legislative fund. The program was as follows:

"Care of the Pregnant Mother," W. S. Chase. Discussion opened by C. T. Hill. "Labor," A. W. Jones. Discussion opened by L. B. Humphrey. "After Care of the Mother and Child," J. A. Hulse. Discussion by L. J. Wise. An interesting specimen showing a small degenerated left kidney and the ureter which opened into the prostatic urethra was exhibited by M. L. Hunt.

The following officers were elected: President, M. D. Stevenson; Vice President, C. W. Millikin; Secretary, J. H. Weber; Treasurer, L. J. Wise; Board of Censors, D. S. Bowman; Board of Public Health and Legislation, C. W. Stauffer and F. M. Hughes, West Rischfield; Library Committee, J. H. Seiler; Auxiliary Committee on Public Policy and Legislation, J. A. Hulse.

SEVENTH DISTRICT

The Columbiana County Medical Society met December 10, at Lisbon. Hunter Robb of Cleveland presented a paper on "Gynecology in Its Relation to the General Practitioner." Discussion—Drs. Anderson, Marquis, Jones and McCreedy.

The election of officers for the ensuing year then took place, with the following results: President, S. R. McCreedy, Leetonia; Vice President, William N. Calhoun, Liverpool; Secretary, D. J. Jones, Lisbon; Treasurer, A. B. Talmadge, Columbiana; Censor, P. C. Hatrford, East Palestine.

Dr. Gruber of Guilford made application for membership and was elected.

Alex Cruikshank, the retiring Secretary, reported on the work for the past year as follows:

The society at present has a paid-up membership of sixty, which is an increase of thirteen during the year. Of these, forty-nine were reinstated and eleven were admitted on application.

The meetings during the year have been interesting and instructive and well attended, considering the heretofore poor railroad facilities. The average attendance was twenty-eight.

It was moved and seconded that the prosecuting attorney, Mr. McGarry, be tendered a vote of thanks in recognition of the good work he has accomplished in eliminating quacks and fake medicine vendors from the county. The motion was carried unanimously.

was carried unanimously.

The society adjourned to meet in Salem the second Tuesday of January, 1908.

The Columbiana County Medical Society met December 10. The program was as follows:

"The General Practitioner and Gynecology," Hunter Robb, Cleveland; "Five Cases of Extra-Uterine Pregnancy," J. A. Dickson, Youngstown.

The annual meeting of the Tuscarawas County Medical Society was held in the "Pathfinder's Hall," Newcomerstown, Ohio, December 3. The following program was presented:

"Diagnosis and Treatment of Gallstones," T. C. Hoover, Columbus; "Treatment of Eclampsia," J. D. Lower, Coshocton, Ohio; "Diagnosis and Treatment of 'Hæmatia,'" C. D. Kurtz; "Report of Cases."

The society was entertained by the Newcomerstown physicians at dinner at 4:30.

The Jefferson County Medical Society met in regular session in Steubenville, December 10. On account of the death of Dr. J. A. Oliver, a member of the society, there was no scientific program. The following officers were elected for the ensuing year: President, J. W. Collins, Toronto, O.; Vice President, S. J. Podlewski; Secretary, J. R. Mossgrove; Treasurer, J. E. Miller; Member Auxiliary Legislative Committee, W. G. Fitzsimmons; Delegate, J. W. Watt, Toronto; Alternate, S. O. Barkhurst. The subject for discussion at the next meeting will be "Social Evil."

The Coshocton County Medical Society held a meeting in the public library December 19.

C. A. Portz of Baltic read a paper on the subject of lumbar pneumonia. It is a very much discussed question, and the paper was founded on a deep study of the subject. The following officers were elected for the ensuing year: President, Jesse McClain; Vice President, C. A. Portz of Baltic; Secretary, J. D. Lower; Delegate to State Convention, F. H. Yarnell; Alternate, S. A. Stacy.

The Belmont County Medical Association held a well-attended meeting Thursday, December 19, at the Windsor Hotel in this city. An interesting program was rendered which included addresses by J. P. West, A. C. Beetham and J. A. Clark. At the conclusion of the program the annual election of officers was held and the following were elected: President, A. W. Diven; Vice President, W. R. Armstrong; Secretary, J. S. McClellan; Treasurer, A. C. Beetham.

EIGHTH DISTRICT

The fourth annual meeting of the Eighth District Medical Society was held at Newark on December 5, and was the most successful in the history of the society. The local committee made every effort to provide for the comfort and pleasure of the visiting members, and succeeded in demonstrating the whole-souled hospitality of the Licking County Medical Society. The following program was carried out:

Morning Session, 10 o'clock—"Address of Welcome, C. H. Wells, President Licking County Society, Summit Station; "Response and Annual Address," E. C. Brush, President District Society, Zanesville; "Reading of Minutes of Last Meeting"; "Business Meeting."

Afternoon Session, 1 o'clock—"The Experience of a Country Physician at the State Meeting," S. E. Butts, Nelsonville; "Cholelithiasis," J. A. Mitchell, Newark; "Traumatic Cerebral Hemorrhage" (Clinical Case), B. F. Barnes, Newark; "Christian Science vs. Medical Science," Edward Cass, Dresden; "Experience From 100 Laparotomies," I. R. Trimble, Baltimore, Md.; "Rectal Fistula," S. A. Cunningham, Marietta; "Rectal Abscess," Sterling B. Taylor, Columbus. Papers limited to twenty minutes. Discussion to five minutes.

Evening Session, 6 o'clock—Memorial Hall, G. A. R. dining room, luncheon by Licking County Medical Society in honor of Eighth District members: Talk—"The American and the Japanese Red Cross for War," Major Henry I. Raymond, Columbus, Ohio, Barracks; "Expert Testimony," Hon. Link C. Russell; "Experience Meeting."

While all of the papers were thoroughly enjoyed, those presented by the guests of the society, I. R. Trimble of Baltimore, Md.; Major Henry I. Raymond of the U. S. Army, and S. B. Taylor of Columbus, should be especially mentioned as contributing especial interest to the occasion.

The following officers were elected for the ensuing year: President, J. M. Hyde, Nelsonville; Secretary, W. E. Wright, Newark.

The Noble County Medical Society met in regular session December 12, and elected the following officers for 1908: President, C. P. Simons, Caldwell; Vice President, W. S. Williams, Caldwell; Secretary, F. R. Dew, Belle Valley, Treasurer, C. A. Craig, Ava; Censor, D. G. Albers, Fulda.

At the regular meeting of the Noble County Medical Society on January 9, the program will consist of papers and discussion on the subject of "Rheumatism," and in February a public meeting will be held. The subject for discussion will be, "Am I My Brother's Keeper?"

From a Lawyer's Standpoint—C. O. Dye.

From a Minister's Standpoint—Rev. Wall.

From a Physician's Standpoint—F. R. Dew.

On December 19, the Perry County Medical Society held one of the biggest and best meetings in its history. Almost every physician in the county was present. The program rendered was as follows:

"The Doctor—His Personality in His Practice and Its Effect on His Patient"—Dr. James H. Wright, New Lexington.

"Gonorrhœa"—Dr. E. O. Smith, Cincinnati.

"Traumatic Neuroses"—Dr. B. F. Beebe, Cincinnati.

"The Use of Antitoxin With Especial Reference to Croup"—Dr. E. L. Danford, Glouster.

"Abdominal Pain"—Dr. J. M. Dennison, Crooksville.

"Multiple Neuritis"—Dr. N. T. McTeague, New Lexington.

At the noon hour a special dinner was served to the members at the Park Hotel.

The following officers were chosen for the ensuing year: J. W. Croft, Corning, President; J. M. Denison, Crooksville, Vice President; J. G. McDougal, Secretary-Treasurer; J. H. Wright, Delegate to the State Convention; N. T. McTeague, Legislative Committeeman; Drs. C. B. Holcomb, Corning; A. Richards, New Lexington, and B. A. Thomas, Rushville, Censors.

The one hundred and sixtieth regular monthly meeting of the Muskingum County Medical Society was held at their rooms in the market-house on Wednesday, December 11. W. D. Deuschle of Columbus read a scholarly paper on "The Psychasthenic State," and T. W. Rankin of Columbus read a paper entitled "What Are Our Useful Therapeutic Means." The doctor discussed this broad subject from the standpoint of accuracy in prescribing, dwelling especially upon the deleterious effects of drugs prescribed for conditions in which a proper diagnosis would have determined their contraindication. The meeting was well attended.

NINTH DISTRICT

The fifth annual meeting of the Ninth District Medical Society was held at Wellston, Thursday, November 7, J. L. Gahm of Jackson presiding. In the absence of J. S. Rardin of Portsmouth, W. J. Ogier of Wellston acted as Secretary.

At the forenoon meeting Dr. Gahm presented a case of round-celled sarcoma deeply seated in the neck, the diagnosis having been made at Grant Hospital after incision. The patient, a man of twenty years, had now been for eight weeks subjected to injections of Coley's fluid and the tumor had decreased greatly in size.

J. E. Sylvester presented a boy seventeen years old, who had been under treatment for six months for disease of the neck of the femur. After incision and scraping, the wound has shown a sloughing tendency, but after two months' use of Bier's elastic bandage, applied as a figure-of-eight to the hip and body, the wound had shown much improvement and the body was able to go to school, though the sinus had not entirely healed.

W. H. Parker of Wellston read a paper on "Squint: Its Cause and Treatment."

C. O. Dunlap of McArthur gave the history of a case of "Mental Blindness," a rare condition well described.

C. L. Bonifield, President of the State Medical Association, spoke extemporaneously on the "Early Diagnosis of Uterine Cancer." He emphasized the importance of the early repair of all puerperal lacerations, and stated that women who had suffered severe lacerations of the cervix should be kept under observation, and on the supervision of any suspicious signs should have a thorough examination made by curettage, etc. This statement provoked an animated discussion.

C. S. McDougal of Athens, Councilor of the Eighth District, presented a valuable paper on "The Obligations of the General Practitioner to

the Acute Insane." He condemned severely the indiscriminate rushing to hospitals for the insane of all cases of delirium, many of whom did better at their own homes.

The subject of "Prescribing" was treated by I. P. Seiler of Piketon.

At 7:30 o'clock a banquet was served at the New Hotel Wells. Councilor J. E. Sylvester acted as toastmaster and speaking followed till ten o'clock.

L. F. Roush of Pomeroy was elected President, and Dr. J. S. Rardin of Portsmouth was re-elected Secretary and Treasurer. Portsmouth was chosen as the place of the next meeting.

The Gallia County Medical Society met in postponed session in Gallipolis, November 13, 1907, with the President, S. W. Williams, in the chair. Following routine business, C. G. Parker presented to the society a child with a bi-lobular, benign tumor extending over right temple and cheek; history of condition singularly interesting, discussion lively and diagnosis problematical.

The Secretary next read letters received by him from headquarters of the Committee on Medical Legislation of American Medical Association, announcing his appointment to position on the National Auxiliary Legislative Committee as a representative of Gallia County.

C. G. Parker and S. P. Fetter made report of the Ninth District medical meeting held at Wellston, November 7, 1907. S. W. Williams then read a paper upon "The County Medical Society," full of good, healthy thoughts along the line of practical society work.

The society held regular meeting on December 4 in Gallipolis, William H. Pritchard presiding. The matter of the annual election of officers was brought forward. The chair named Drs. R. A. Howell, Lupton, and Austin as the nominating committee. The officers elected for the ensuing term are as follows: President, William Miller, Thurman, Ohio; Vice President, R. A. Howell, Patriot, Ohio; Secretary, S. P. Fetter, Gallipolis, Ohio; Treasurer, M. L. Austin, Gallipolis; Censors, S. W. Williams, Mercerville; W. H. Pritchard, Gallipolis; William Miller, Thurman.

Milo Wilson, recently a member of Athens County Society, was made member of Gallia County Society.

William Miller next read a paper on "Acute Nephritis," citing three strongly illustrative cases of the condition. R. A. Howell read a paper reporting clearly and incisively a case of "Rupture of Cystic Tumor Resulting in Peritonitis. Treat-

ment—Cæliotomy." The papers received hearty discussion.

The Pike County Medical Society met in regular session December 2. After the reading of the minutes of the last regular meeting, the regular order of business was taken up and the following officers were elected for the year 1908: President, C. M. Mooney, Waverly; Vice President, E. M. Dixon, Stockdale; Secretary, I. P. Seiler, Picketon; Treasurer, O. C. Andre, Waverly.

E. W. Tidd of Stockdale delivered an excellent address on "The Principles of Medical Ethics."

The regular monthly meeting of the Vinton County Medical Society was held December 5. The following officers for 1908 were elected: President, W. T. Cherry; Vice President, W. H. Henry; Secretary, C. O. Dunlap; Treasurer, O. S. Cox; Representative to House of Delegates, C. O. Dunlap.

O. S. Cox reported a case of "Mitral Insufficiency," which was discussed by members and visitors.

It is the intention of the society to take up the study of *Materia-Medica* and *Therapeutics*.

TENTH DISTRICT

The Columbus Academy of Medicine held its regular meeting December 2, 1907. The society had as guest, George B. Cutten, M. A., Ph. D., of Columbus, who spoke on "Psychology and the Physician."

Dr. Cutten gave a brief historic review of mesmerism, hypnotism and the suggestive cults, and called attention to the fact that physicians unconsciously practiced suggestive therapeutics by the giving of positive and intelligent assertions concerning symptomatology and the action of drugs. The address was based upon experience gained from original work in psychology. Hypnotism was defined as an artificial (morbid) sleep-like condition—a state of sub-consciousness, in which the subconscious self retained automatic motor activity, while mental initiative, volition and judgment were impaired. It was acknowledged that the mental cults had been overworked, and that physicians had ignored the value of hypnotism because of the exaggerated claims made by charlatans. He considered the intelligent use of the hypnotic power a valuable adjunct in the treatment of many functional maladies, and for the performance of minor surgical operations—in selected cases. No curative aid could be expected in the presence of an organic disease; mental treatment had no effect on a

definite pathological lesion. It required experience for one to successfully use hypnosis for practical purposes. A person once hypnotized was, usually, an easy subject for hypnosis. Idiots, insane persons, young children, and persons incapable of exercising continuous attention could not be hypnotized by ordinary methods.

A general discussion of the paper followed by Drs. Kinsman, Probst, Baldwin, Warner, Wilson, Rankin, Harding and Moore.

Frank Warner presented a patient to show the result of treatment in a Colles' fracture. Another patient was presented, with skiagrams of a fracture through the olecranon process. The X-ray had been an important factor in the making of a correct diagnosis.

R. A. Rice reported the giving of a general anæsthetic to two sleeping babies; both were less than a year old. They were anæsthetized without the least disturbance of normal sleep. Chloroform was used.

Dr. Rice said that he had recently used ethyl bromide for a period of forty-five minutes. The patient was tuberculous, and was operated upon by Dr. Rodgers for mastoiditis. The anæsthetic was well borne, and was followed by no ill after effects. Dr. Rice also presented a new ether inhaler which he was using with more satisfaction than any apparatus previously used.

Regular Meeting, December 16, 1907.

The annual election of officers resulted as follows: President, Wells Teachnor; Vice President, Hugh H. Baldwin; Secretary, Charles J. Shepard; Treasurer, R. Blee Smith; Delegate, William C. Davis; Censor, Herbert M. Plater.

The Ross County Academy of Medicine held their regular meeting October 26. At this meeting it was decided to hold the meetings twice a month.

"Typhoid Fever," James Wiltshire of Richmondale; "Early Diagnosis of Gall Stones," Hugh F. Lorimer, Chillicothe. Many interesting clinical cases were presented.

The following physicians were elected to membership: E. F. Waddell, Chillicothe; W. A. Hall, Chillicothe; E. Meggenhoffen, Chillicothe; H. A. Ingalls, Chillicothe; L. M. Tinker, Frankfort.

Four new members were admitted and one transferred from Cincinnati Academy of Medicine.

Regular Meeting, December 10, 1907.

Program: "The Diagnosis and Treatment of Eczema," R. E. Bower, Chillicothe, O.

Clinical cases reported: Drug rash, resembling smallpox; gastric ulcer with perforation.

The retiring President, W. S. Scott, Chillicothe, made the annual address. The election of officers for the ensuing year resulted as follows: President, H. F. Lorimer, Chillicothe; Vice President, J. M. Hanley, Chillicothe; Secretary, R. E. Bower, Chillicothe; Treasurer, D. A. Perrin, Bourneville; Member of the Board of Censors, C. S. Lighter, Kingston; Member of Legislative Committee, F. F. Mars, Chillicothe.

The Madison County Medical Society met at London, November 29. J. F. Kirkpatrick of London read a very instructive paper on "Some Points on Neurasthenia." The doctor spoke very forcibly on the different patent medicines on the market that are producing so many of our neurasthenics; he also advised the more careful treatment of these cases. A. Delaplane of South Solon was elected Corresponding Secretary and Reporter for the JOURNAL. It was decided to hold the next meeting at the Neil House in Columbus, followed by a 6 o'clock dinner and theater party. The date of this meeting is December 27.

The Fairfield County Medical Society met November 19. W. S. Samson read a paper on "Adenitis." It was voted that the society hold an open meeting in February, to which the public will be invited.

The Delaware County Medical Society held one of the most interesting meetings of the year, and an elaborate banquet tendered to his associates by the retiring president, D. E. Hughs, was the feature of the December meeting on Friday evening. Every physician of the city save three who were out of town was present at the meeting, and there was not a dull moment from the time President Hughs opened the session.

In the business session, which came first, the following officers were elected for the coming year:

President, F. L. Gage; vice-president, Will Woodworth; secretary, A. J. Pounds; treasurer, Irvadell Rogers; chief of staff, W. B. Hedges; censor, Wm. M. Semans.

In the program which followed Dr. Mitchell, of Cincinnati, read a paper on "Children Taking Cold," and Dr. Bonifield, the president of the State Association, gave a talk on "Organization." A lively discussion of some of the points brought out by Dr. Mitchell then ensued.

Following the program the members were escorted to the Delicatessen, where a feast of good things was "set up" by Dr. Hughs. J. K.

James acted as toastmaster in one of the most enjoyable series of after dinner speeches enjoyed by the medical men of the city.

As guests of the society Dr. Newhouse, of Magnetic Springs, Dr. Owen, the nurses from the City Hospital, and Dr. Mitchell's son, a student at Ohio Wesleyan, were present.

Greetings were sent by the society to Dr. Marie Perfect, who recently had to undergo an operation at a Columbus hospital.

The Fairfield County Medical Society met in regular monthly session Tuesday afternoon, December 17, in the council chamber.

H. R. Plum read a paper on "Diaphoretics," and H. M. Hazelton gave a paper on "Urinalysis." A paper on "Lancaster's Water Supply," by G. A. Harman, was deferred until the next meeting on account of the lack of time to have it read and discussed.

The hospital plans as submitted to the local board of public service by Architects Merriott and Allen of Columbus, were up for consideration, a committee of physicians having been in conference with the board the previous evening, but the society refused to approve the plans. The physicians insist that the capacity is too small in consideration of the amount of money to be expended on the building. The structure planned has capacity for only 23 patients.

The annual election of officers was held, resulting as follows: President, H. M. Hazelton; Vice President, A. A. Bradford, of Bremen; Secretary, J. T. Farley; Treasurer, G. A. Harman; Auxiliary Committeeman, H. M. Hazelton; Member Board of Censors, R. W. Mondhank.

The Knox County Medical Society held a meeting at the parlors of the Curtis House Friday, December 13, with a large attendance. An interesting paper on "Appendicitis" was read by J. F. Baldwin of Columbus. The following officers were elected for the year: President, John E. Russell, Mt. Vernon; Vice President, W. H. Eastman, Fredericktown; Secretary, Fred L. Singrey, Mt. Vernon; Treasurer, J. H. Norrick, Fredericktown. The society adjourned to meet the second Friday in January.

NEWS NOTES

The Northwestern Ohio District Medical Association held their sixty-third annual meeting in Toledo, December 10 and 11. The sessions were well attended. The society had as guests G. W. McCaskey of Ft. Wayne, and Byron Robinson of Chicago. The program was as follows:

Tuesday Morning—"Divine Invocation," Rev. Ernest Bourner Allen; "Address of Welcome," Hon. Brand F. Whitlock; "Response," Frank D. Bain, M. D., Kenton. "Some Special Forms of Orthopædic Surgery," J. H. Huntley, Allen County Society, Lima. Discussion—Dale Wilson, Toledo. "Acute Dilatation of the Stomach," C. D. Selby, Academy of Medicine, Toledo. Discussion—W. H. Rheinfrank, Perrysburg. "Electro-Thermic Hæmo-Stasis," J. C. Tritch, Hancock County Society, Findlay. Discussion—James Donnelly, Toledo.

Tuesday Afternoon, 1:30—"Acetanilide in Therapeutics," H. B. Gibbon, Seneca County Society, Tiffin. Discussion—Park L. Myers, Toledo. "Sewage Disposal," J. T. Haynes, Erie County Society, Soldiers' Home. Discussion—R. D. Kahle, Lima. "What Should the Baby Eat?" J. U. Riggs, Williams County Society, Bryan. Discussion—J. F. Liken, Toledo. "Theoretic Considerations Relative to Immunization in Tuberculosis by Mixed Tuberculin," W. J. Stone, Toledo; E. C. L. Miller, Detroit. Discussion—A. M. Crane, Marion. "Acute Anterior Poliomyelitis," W. F. Reed, Putnam County Society, Ottawa. Discussion—Louis Miller, Toledo. "Diagnosis in Surgical Diseases of the Kidneys," George M. Todd, Academy of Medicine, Toledo. Discussion—E. M. Ikes, Fremont. "When to Operate in Peritonitis," Charles Graefe, Erie County Society, Sandusky. Discussion—J. H. Jacobson, Toledo. "Membranous Rhinitis: A Type of Diphtheria Often Overlooked and a Source of Epidemics," Thomas Hubbard, Academy of Medicine, Toledo. Discussion—E. H. Porter, Tiffin. "The General Practitioner in Diseases of the Eye, Ear, Nose and Throat," C. S. Campbell, Fulton County Society, Wauseon. Discussion—A. H. Linaweaver, Findlay. "Some Investigation in the Physiology of Digestion," L. A. Levison, Academy of Medicine, Toledo. Discussion—L. C. Grosh, Toledo. Address, Charles L. Bonifield, Cincinnati, President of the Ohio State Medical Association.

Tuesday Evening—Address on Medicine: "Internal Medicine, Some of Its Present Aspects, Achievements and Tendencies," George W. McCaskey, Fort Wayne. Address on Surgery: "Splanchnoptosis and Its Influence," Byron Robinson, Chicago. Annual dinner, 9 p. m.

Wednesday Morning, 8:30—"Diagnosis and Treatment of Prostatic Hypertrophy," J. G. Keller, Academy of Medicine, Toledo. Discussion—F. M. Helwarth, Van Wert. "Placenta Previa, With Report of Cases," J. Charles Bowman, Ottawa County Society, Martin. Discussion—Martin Stamm, Fremont. "Diagnosis and Treatment of External Diseases of the Eye," E. B. Dimond,

Academy of Medicine, Toledo. Discussion—F. G. Steuber, Lima. "Biliary Calculi," C. F. Douglas, Putnam County Society, Kalida. Discussion—J. S. Deemy, Bellefontaine. "The Present Status of Roentgenology, With Exhibition of Slides," H. W. Dachtler, Academy of Medicine, Toledo. Discussion—W. S. Powell, Defiance. President's Address, W. J. Gillette. "Infant Feeding," N. H. Jackson, Defiance County Society, Hicksville. Discussion—A. S. Rudy, Lima. "Treatment of Pulmonary Hemorrhage," W. A. Dickey, Academy of Medicine, Toledo. Discussion—A. E. H. Maerker, Napoleon. "Continued Fever," C. E. Huston, Logan County Society, Rushsylvania. Discussion—S. P. Bishop, Delta. "Prostatitis," C. M. Harpster, Academy of Medicine, Toledo. Discussion—C. L. Mueller, Wapakoneta.

A banquet was given at the Monticello. Toasts were responded to by Park L. Myers, C. L. Bonifield, President of the State Association; W. A. Dickey of Toledo; S. B. Hiner, Lima; J. A. Weitz, Montpelier, and Mr. Dunn of Toledo, editor of the Toledo Citizen.

Third annual meeting Ohio Medical Teachers' Association was held at the Hartman Hotel, Columbus, Friday, December 27, 1907.

PROGRAM.

The following papers were read and discussed:

PAPERS.

Should Physiology Be Taught in the First Year of the Curriculum, or in the Second Year, or in Both Years? G. W. Spencer, Cleveland Homœopathic Medical College. Discussion—F. H. Lamb, Miami Medical College. The Laboratory Limitations in Medical Colleges, C. F. Hegner, Miami Medical College. Discussion—C. C. Howard, Starling-Ohio Medical College; J. G. Spenser, Cleveland College of Physicians and Surgeons. The Ruling of the Minnesota State Board, Restricting License to men who have had two years of Academic College Work preceding their Medical Training; its probable effects on State Boards and Entrance Requirements in Colleges. E. J. Wilson, Ohio State Board Medical Examiners. Discussion—C. E. Walton, Pulte Medical College. The Modern Standard of Medical Education for Practitioners of Medicine and Surgery demands: 1. An Examination for License in a larger number of Subjects. 2. An Examination by more Practical Methods. 3. More Uniformity among the different States, W. J. Means, Starling-Ohio Medical College. Discussion—A. Ravogli, S. M. Sherman. E. J. Wilson, H. E. Beebe, James A. Duncan, J. M. Stephenson, R. M. Thomas, Ohio State Board of

Medical Examination and Registration, Eclectic Medical Institute. What Subjects can be practically included in "A Year of Work in Chemistry, Physics and Biology," Prof. W. F. Mercer, Ohio University. Clinical Methods in the Education of the Medical Student, J. A. Thompson, Miami Medical College. Discussion—H. D. Bishop, Cleveland Homœopathic Medical College. The Clinical Teaching of Surgery, J. U. Barnhill, Starling-Ohio Medical College. Discussion—C. A. Hamann, Medical Department, Western Reserve University.

8:00 P. M.—Evening Session: What are the Essential Subjects of General Information that the Physician should have to take his proper place in the Community? Pres. A. T. Perry, Marietta College. Discussion—M. J. Lichty, Cleveland College of Physicians and Surgeons; L. E. Siemon, Cleveland Homœopathic Medical College. The Question of Academic Seniors in Absentia in Professional Schools, A. R. Baker, Cleveland College of Physicians and Surgeons. The Necessity of Added Emphasis in the Teaching of Therapeutics and Pharmacology, W. A. Dickey, Toledo Medical College. Discussion—J. B. McGee, Cleveland College of Physicians and Surgeons; G. J. Jones, Cleveland Homœopathic Medical College. The Standardizing of the Medical Curriculum, F. C. Waite, Medical Department, Western Reserve University.

The splendid work which has been done by the Columbus Society for the Prevention and Cure of Tuberculosis in the camp treatment of indigent tuberculous patients has bright prospects of receiving ample assistance from the county commissioners. The board acted upon the following resolutions:

A resolution was passed on Saturday, December 14, by the county commissioners which provided for the erection of a tuberculosis hospital, to be known as the "Franklin County Tuberculosis Hospital." It further provided that the building should cost not less than \$12,000, and that if it was found necessary to expend more it was the opinion of the commissioners that the money would be expended.

No definite plans have as yet been made, but some of the infirmary directors will visit the Youngstown Hospital, as well as the hospital maintained by the city of Cleveland. The object is now to provide adequate quarters for all indigent tuberculosis patients, and to so construct the building that if the quarters become inadequate additions may be readily built. This home is due to the work of the tuberculosis society of

Columbus, and perhaps Mrs. Samuel L. Black deserves the most credit owing to her indefatigable work.

The commissioners met December 14 and were addressed by Dr. Probst, of the State Board of Health. He described to them the building in contemplation at Mt. Vernon, for which the state is expected to furnish \$350,000. He also stated that in the state 6000 persons were dying yearly from consumption. He said that the main object of a home of this kind was to separate the patients from those who might become infected. He also said that the isolation of the patients would probably save the other members of the family from becoming infected. He suggested that the hospital be built so that the incurable patients might be separated from those subject to treatment.

The fourth conference of the State Board of Health with representatives of local boards will be held in Columbus January 23, 24 and 25, 1908.

This conference will be the second held with municipal boards of health of cities and villages of 3000 or more inhabitants and is for representatives from such cities and villages only.

The sessions will begin on Thursday afternoon at 2 o'clock.

Friday morning and afternoon will be devoted to an inspection of the water and sewage purification plants now under construction and about completed by the city of Columbus.

The water filtration and softening plant, with pumping station and pipe line, will cost approximately \$1,300,000. This plant will be the largest softening plant in the world yet constructed.

The sewage purification plant, with pumping machinery and force mains, will cost about \$1,000,000. At a cost of \$46,000 for experiment the city decided to introduce sprinkling filters, and this will be the largest sewage disposal plant ever constructed using this method.

A start will be made for the water purification plant at 9 a. m., returning about noon. The excursion to the sewage purification plant will leave at 2 p. m. and will occupy about three hours.

QUESTION BOX.

An opportunity will be given to discuss subjects not on the program under the "Question Box." Any board of health or health officer may bring forward a question for discussion, but it must be in writing. Preferably these questions should be of general concern and not pertain to matters of purely local interest.

The program will be as follows:

First Session, January 23, 2 p. m.

1. Opening remarks by the president of the State Board of Health, D. G. Palmer, Geneva.
 2. "The Laboratory in the Diagnosis of Diphtheria," T. Clarke Miller, Health Officer, Massillon.
 3. "Should the State Manufacture and Distribute Diphtheria Anti-toxin Free?" E. V. Hog, Health Officer, Lorain.
 4. "In Diphtheria, Who Should be Immunized and When Should They be Released from Quarantine?" W. W. Smith, Health Officer, Portsmouth.

Question Box.

Second Session, January 23, 8 p. m.

1. "A Plea for Medical Inspection of Schools," J. C. Reinhart, Health Officer, Toledo.
 2. "Provisions of the New National Food Law in Relation to Health," Professor H. C. Weber, professor of agricultural chemistry, Ohio State University.
 3. "Tracing the Origin of Epidemic Typhoid," H. M. Platter, medical inspector, State Board of Health and inspector of contagious diseases for the city of Columbus.

Question Box.

January 24, Morning.—Inspection of Columbus water filtration and softening plant. Special cars will leave Gay and Water streets at 9 o'clock.

Afternoon.—Inspection of Columbus sewage purification plant. Excursion will leave T. & O. station at 2 o'clock.

Third Session, January 24, 8 p. m.

1. "Some Points in Water and Sewage Purification Brought Out by the Special Investigation of the Ohio State Board of Health," R. Winthrop Pratt, chief engineer, State Board of Health.
 2. "Special Features in the Construction of Water Purification Plants," illustrated by stereopticon, Philip Burgess, special assistant engineer, State Board of Health.
 3. "Special Features in the Construction of Sewage Purification Plants," illustrated by stereopticon, A. Elliott Kimberly, special assistant engineer, State Board of Health.
 4. "The Collection and Disposal of Garbage in Cities and Villages," Paul Hansen, assistant engineer, State Board of Health.

Question Box.

Fourth Session, January 25, 9 a. m.

1. "Precautions to be Taken in the Delivery of Milk to Families Having Contagious or Infectious Diseases," Bert Rodebaugh, Health Officer, Barberton.
 2. "Measures to be Taken at the Dairy When Typhoid or Other Infectious Disease is Traced to the Milk Supply," A. V. Smith, Health Officer, Canton.
 3. "Medical Volunteer Inspection and Certification of Milk," Byron Stanton, member State Board of Health, Cincinnati.

Following the meeting of the Northwestern Ohio District Medical Association meeting, St. Vincent's Hospital and Robinwood Hospital gave a clinic. The program was as follows:

St. Vincent's Hospital—2 p. m.: "Abdominal Section," J. H. Jacobson; "Gastro-Enterostomy," James Donnelly; "Antrum Suppuration," Thomas Hubbard; "Pernicious Anemia, Dextro-Cardia, Mitral Stenosis," L. C. Grosh; "X-ray Demonstration," S. M. Dolloway.
 3 p. m.: "Abdominal Section," C. N. Smith; "Amputation of Breast," Peter Donnelly; "Cystoscopy and Catheterization of Ureters," R. S. Walker; "Nervous Diseases," Louis Miller; "Laboratory Demonstration," R. P. Daniells.
 4 p. m.: "Sarcoma of Sternum," G. M. Todd; "Plastic Operation for Restoration of Eyelids," Charles Lukens; "Gonorrheal Ophthalmia and Arthritis," E. W. Alter and N. W. Brown; "Medical Cases," W. J. Stone.

Robinwood Hospital—2:30 p. m.: "Laparotomy," W. F. Gillette.
 3:30 p. m.: Demonstration of Surgical Cases, W. F. Gillette and H. L. Green.

J. L. Wiggins, East St. Louis, was elected president of the Ohio Valley Medical Association. The meeting in 1908 will be held at French Lick Springs, Ind.

The legislative conference of the American Medical Association indorsed a plan broached by Charles A. L. Reed, of Cincinnati, for the assembling of a national council to secure the passage in all states of uniform laws regulating the practice of medicine in order to create reciprocity in state licensing.

Dr. Reed, in his report as chairman of the meeting, urged that not only this end but the settlement of other problems of social and commercial importance depended principally upon the enactment of standard laws throughout the Union. He was authorized to name a committee of forty-six to consider the assembling of a council.

A recommendation for the general adoption of the Alabama plan of state and county regulation of public health matters, with an added suggestion for a national medical commission, was made by W. H. Sanders, State Health Officer of the Southern state. He said the state and county medical societies of Alabama and recognized as the boards of health for their different jurisdictions.

The regular meeting of the Lakeside Hospital Medical Society was held in the hospital library Wednesday, October 30, 1907, at 8 p. m. "Case of Tubal Abortion, with Report of Cases," Dr. Allen; "Report of a Case of Double Pelvis of Kidney," Dr. Birge; "Case of Ventral Hernia," Dr. Hofmann; "Case of Ascites, with Possible Malignancy of Liver," Dr. Lowman; "Case of Poliomyelitis Anterior, with Sensory Dissociation," Dr. Hoover; "Case of Chronic Retention of Urine in a Boy," Dr. Eisenbrey; "Case of Primary Anemia," Dr. Cummer; "Report of Three Cases of Epithelioma Following Syphilis," Dr. Crile; "Case of Iodoform Poisoning Simulating Scarlet Fever," Dr. Vincent; "Presentation of Pathological Specimens," Dr. Hewitt.

The annual report of the State Hospital for Epileptics, at Gallipolis, was filed November 15. The hospital has been in operation thirteen years, during which time 3549 patients have been treated. Of this number 258 have been discharged as cured. The average number of patients for the past year was 1294. Ten were discharged during the year as cured. The death rate for the year was 10 $\frac{3}{8}$ %. The per capita cost was \$173.66, an increase of \$5.83 over last year. The total expenditure for the year, not including repairs and permanent improvements, was \$224,713.10. The trustees have asked for an appropriation of \$354,500 for the ensuing year.

E. S. McKee read a paper before the Academy of Medicine December 16 on "The Hymen, Anatomically, Medico-Legally and Historically Considered," and at the Alumni Association of the Medical College of Ohio, December 18, on "Physicians and Publicity: A Study." On December 19 he was invited to discuss a very valuable paper by Professor J. U. Lloyd, the author, on the subject "Am I My Brother's Keeper?" dealing with the venereal peril and read before the Cosmic Club.

A new service has been inaugurated by the Columbus (Ohio) Tuberculosis Society. It is the medical examination of children to determine if they have any symptoms of infection. The work has begun with the children of the homes where tuberculosis is known to exist, and to these it is hoped will be added any children in whom the presence of the disease is at all suspected. The examination will be conducted every Saturday from 2 to 4 o'clock at the new (Rich street) dispensary.

The Cincinnati Hospital treated 7878 patients for the year 1906. The largest number of patients at one time was 592, the smallest 380, and the average 477. The per capita cost was \$1.05. The expenditure for the year was \$183,676, of which amount only \$4285 was received from pay patients.

H. Van Aalen Shangur, of Cincinnati, has just returned from a trip to New York, where he spent some time in the Mt. Sinai and St. Luke Hospitals. Dr. Dudley Webb has also just returned from the same city after devoting some weeks to special genito-urinary work in the hospitals.

The November meeting of the Charity Hospital Medical Society was held Wednesday evening, November 3, 1907, at 8 p. m. The program was as follows: "Carcinoma of the Liver, Report of Case," W. H. Merriam; "Acute Myelitis, Presentation of Case," W. H. Rieger; "Psoriasis, Presentation of Case," R. A. Bolt.

W. F. Hale, of Jackson, who, after being fined ten years ago for practicing medicine without authority and has ever since successfully defied the Board of Registration, was recently taken to a sanitarium for nervous diseases at Cincinnati.

While at the home of a relative near Wellston during the meeting of the Ninth District Medical Society, the wife of C. H. Wilson, of Idaho, Pike county, was seriously injured by a fall.

The innovation of eliminating evening hours is being tried by the physicians of Bellefontaine, Ohio. An agreement to the effect that their offices would be closed at 6 o'clock each evening except Saturday was signed by all the physicians and published in the local papers.

Plans for the new State Hospital for the Criminal Insane, to be located at Lima, have been submitted. The hospital will be built on the cottage plan and will accommodate 1200 patients.

Wm. Gillespie read a very valuable paper before the Alumni Association of the Medical College of Ohio at its December meeting on physicians in their relation to the public and to each other.

Joseph Ransohoff performed a successful herniotomy upon Dr. John Ranly November 5 at the Good Samaritan Hospital, Cincinnati.

CONTRIBUTORS TO THE LEGISLATIVE FUND.

Clarke County	\$13 00
Erie County	15 00
Greene County	12 00
M. H. Fletcher, M. D., Cincinnati.....	50
Angus MacIvor, M. D., Marysville.....	1 00
John G. Albers, M. D., Fulda.....	1 00
Seneca County	15 00

C. L. Bonifield, president of the Ohio State Medical Society, was the guest of the Philadelphia Obstetrical Society in December and read before that society and the Obstetrical Society of Cincinnati at their December meetings.

A. O. Zwick read before the German Literary Club of Cincinnati on December 18 a paper on the subject of "A German Physician," laying the scene in Stuttgart and describing his ideals of an ideal physician.

Samuel E. Allen, who has so satisfactorily administered the health affairs of Cincinnati for the past two years, has owing to the exigencies of politics been succeeded by Mark A. Brown.

James L. Holden, former mayor of Zanesville, who was indicted for forging his brother's name to a note for \$2500, was declared not guilty in the Common Pleas Court recently.

A. H. Gorrell, recently elected mayor of Zanesville, resigned his office as coroner of Muskingum County, and Charles H. Higgins was appointed to fill the vacancy.

T. A. Reamy, whose health has so improved as to allow him to attend several medical meetings in Cincinnati, has gone to Albany, Ga., to spend the winter.

A. B. Spence, formerly a practitioner of New Lebanon, Ohio, was found guilty of arson and sentenced to two years in the penitentiary.

R. D. Jacobs, of Vinton, formerly representative from Gallia county, is spending the winter in Florida for the benefit of his health.

S. O. Giffin, Columbus, slipped on the icy pavement December 13 and sustained a fracture at the lower third of the right leg.

Charles E. Sawyer, Marion, Ohio, has been elected a member of the committee on the State Hospital for Crippled Children.

Willis H. Keenan, of Caldwell, Ohio, sustained a fracture of the right forearm November 7 by being thrown from his horse.

W. S. Van Fossen, Columbus, was operated upon for appendicitis November 18 at the Grant Hospital, and is convalescing.

ANNOUNCEMENT.

H. A. Rodebaugh announces that he has removed his Sanatorium to 71 Winner avenue, Columbus.

James W. Rowe has returned from his European trip and is again a welcome factor in Cincinnati medical circles.

C. A. L. Reed delivered a lecture at the Cincinnati University November 7 on "Hygiene of Woman's Employment."

H. Kattenhorn will depart November 28 on his trip around the world. He will probably be gone for eight months.

W. H. Snyder, Toledo, was elected vice-president of the Wabash Railroad Surgical Association.

P. S. Conner, who has been in New Hampshire since June, has returned to Cincinnati.

A medical history of Cincinnati is being prepared by Otto Juettner, of that city.

E. S. Ray, of Hamden Junction, is convalescent after a severe illness of two months.

Sara E. Fletcher was elected president of the Women's Medical Club of Columbus.

Frank C. Larimore, Mt. Vernon, is convalescing after an operation for gall stones.

J. M. Hyde, Nelsonville, was elected president of the Eighth District Medical Society.

W. C. Pickering and F. H. Obetz, Columbus, were appointed police surgeons.

MARRIAGES

Charles J. Zeigler, Columbus, was married to Miss Madge Kints, of Logan, November 24.

Mark A. Brown, of Cincinnati, was married November 2 to Miss Alice Grammer Wherry, daughter of Brigadier General William M. Wherry, U. S. A., at Norfolk, Va. They will make Cincinnati their future residence.

Jesse J. Heaton to Miss Fern Hartman, both of McCutcheonville, Ohio, November 14.

William S. Benner, Columbus, to Mrs. Maggie Davidson, of Ironton, Ohio, November 19.

DEATHS

E. Marion Foster died at his home in Portsmouth November 21, 1907, of malaria and blood poisoning contracted while performing a surgical operation. He was a member of the American Medical Association, the Ohio State Medical Association, the Tri-State, the North Ohio District and Hempstead Academy of Medicine of Scioto County.

It having pleased the All-Wise Providence to call from our midst our esteemed co-laborer, Dr. E. M. Foster, in early manhood and in the midst of a busy and exacting professional life, thereby admonishing us of the uncertainty of human existence. Therefore, be it

Resolved, By the members of the Hempstead Academy of Medicine, called together this day by his untimely death, The profession has lost an active, energetic and tireless worker, the community a valuable member of society, his patients a careful and faithful attendant and his family a kind, affectionate and indulgent father and husband.

We take this opportunity of extending to the bereaved family and his friends our heartfelt sympathy in this our common loss.

That a copy of these resolutions be sent to the family and spread upon the minutes of the Academy meeting and offered the city papers and OHIO STATE MEDICAL JOURNAL for publication.

W. W. SMITH,
P. J. KLINE
F. H. WILLIAMS,
Committee.

W. E. Hooven, a former Darke County resident, died at his home in Dayton very suddenly at 7 o'clock Thursday night, December 12. The only cause of death which can be assigned by the physician is heart trouble. Mr. Hooven was

69 years of age. He graduated from the Miami Medical College at Cincinnati.

N. B. Stubbs, Western Reserve, '72, of Stryker, Ohio, died November 20, following a surgical operation, aged sixty-nine.

W. C. Whitney, Chicago Homeopathic Medical College, '98, of Westerville, Ohio, member of the Legislature from Franklin county, died November 22 at the Hunt Hospital, Columbus, from pneumonia, aged thirty-four.

T. N. B. Whiteleather, Ohio Medical University, '98, died at Malvern, Ohio, November 5, from phthisis, aged forty-five.

E. W. Robertson, University of Michigan, '54, died at his home in Cleveland November 7 from apoplexy, aged seventy-six.

C. R. Fowler, Western Reserve, '79, died at the home of his daughter, Columbus, December 3 from apoplexy, aged sixty-three.

James A. Oliver, Buffalo University, '96, died at his home in Steubenville, Ohio, December 1 from erysipelas of the face and head after an illness of one week, aged fifty-five.

Fred Gunsaulus, Starling Medical College, '81, died at Columbus December 9 after an illness of several weeks from septicemia.

H. R. Ferrell, Cincinnati Eclectic Medical Institute, '89, of East Liverpool, Ohio, died November 20 after a long illness.

J. A. Smith, Columbus Medical College, 89, died at Nevada, Ohio, November 17 from pneumonia, aged sixty-six.

Henry K. Spooner, former member of the State Legislature and the oldest medical practitioner in Seneca county, died at his home in Republic December 12.

Adolph Grimm, a well-known physician, residing at 49 East McMicken avenue, died at the German Deaconess Hospital, December 16, from a complication of ailments, in his forty-ninth year. Dr. Grimm was a graduate of the Ohio Medical College, and later studied three years at Heidelberg, Germany.

He was on the staff of the Betts Street Hospital for the past 23 years, and for the past fifteen years was secretary of the staff.

The Ohio State Medical Journal

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No. 2

ORIGINAL ARTICLES

SYMPOSIUM ON DISEASES OF STOMACH*

CLINICAL NOTES ON ACUTE DILATATION OF THE STOMACH, OR ARTERIO-MESENTERIC ILEUS.

WALTER B. LAFFER, M. D.,
Cleveland.

This condition is likely to be encountered by one engaged in any line of medical work, for whether he be surgeon, internist, neurologist, obstetrician, pediatricist or orthopedist, he will find cases reported by workers in his special field.

Many names have been given to this syndrome, but the most frequently used are acute dilatation of the stomach, arterio-mesenteric ileus, post-operative ileus, and post-operative acute dilatation of the stomach.

While the literature of this condition dates back to the writing of the great Rokitsansky (39), yet the condition has not been generally recognized until very recent years, and has always been considered a rare affection.

The subject has been recently very thoroughly discussed by Neck (25 and 163), Conner (160 and 180), and Braun and Seidel (141) and it well illustrates the truth of the saying that, "We see only that for which we are looking." It is surprising how rapidly cases have been added to the literature since the publications of Albrecht (1) and Thomson (2). Albrecht (1) in 1899 found only nineteen cases, including his own, and Thomson (2) but forty-four in 1902. Neck (25), in 1905, was able to find sixty cases, while Conner (188) reported one hundred and two at the beginning of 1907. A careful review of the American and foreign literature has enabled me to find 217 cases, including my own.

From my own clinical records I wish to briefly report four cases.

First Case. Female, aged 25, had been well during her pregnancy. Had never had any stomach trouble. Was delivered of her first

baby after a two hour labor, during which a few drops of chloroform were given. There was some hemorrhage after birth before placenta was delivered, but not enough to affect the pulse or color. The placenta showed a single large cotyledon connected with the placenta proper by a long thin piece of membrane. I was unable to determine the presence of any more cotyledons that had been left behind, by inspection of the placenta. Uterus contracted down well after the delivery of the placenta, and there was no bleeding. All went well until an hour after the birth, when I found my patient with an extremely rapid, scarcely palpable pulse, but with no blanching. She did not show any air-hunger; was conscious. There was no visible bleeding. The uterus was firmly contracted. The upper abdomen was greatly distended. I gave in succession hypodermics of ergot, (for a, perhaps, concealed hemorrhage), adrenalin, ether, brandy and camphor. I sent for Dr. J. J. Thomas, an obstetrician, to aid me.

The foot of the bed was elevated and we gave salt-solution with adrenalin as a transfusion. Dr. Thomas, on seeing the abdomen, also immediately thought of acute dilatation of the stomach, just as I had done, but in the collapsed condition of our patient we feared to pass the stomach tube. This was a mistake.

The collapsed condition persisted for about eight hours, when the pulse became stronger and the general condition better. Patient vomited a considerable amount of green vomitus and for twenty-four hours she vomited all that was ingested, and, frequently greenish slime. Abdomen still very distended, but getting less; not tender. The next morning after delivery, it was reported that she had a restless night. Temperature was 99, pulse 108. Rectal tube left in the rectum had no effect on the distension. Lochia scant and dark in color, and she passed a large clot of blood. At first she had to be catheterized, but later voided urine normally. Later in the day she expelled gas from bowel, after a high enema. Her tem-

*Continued in next issue by M. J. Lichty's article and combined discussion.

perature this evening was 100.2, pulse 116. She now showed a beginning necrosis of the skin and subcutaneous tissue over the right hypochondrium where we had given the salt-adrenalin transfusion. The second day following the day of delivery, the nurse reported that she had belched gas continually all night. Distension was much less. She retained milk and broth. Temperature a. m., 98.6, pulse 100; p. m., 101.2, pulse 120. A rectal tube brought away a large amount of gas. Lochia dark in color, no odor. Uterus and abdomen not tender. Dr. Cushing saw her with me this evening, and thought, as Dr. Thomas and I had, that the condition was one of acute dilatation of the stomach, and that the slight rise in the temperature and pulse was due to the large slough that was forming at the place of transfusion. As her bowels had not moved well as yet, Dr. Cushing advised that effort should be made to secure a free movement, which was done.

The next report showed a better night, and considerable gas had been expelled from the bowel. A. m., temperature 101.8, pulse 120; p. m., 103.6, pulse 132. Lochia dark in color with bad odor, and a small clot was passed. No tenderness about uterus or over abdomen. Distension less. Slough over seat of transfusion loosening up and inflammatory. Bowels moved slightly and a great deal of flatus was passed. Distension of epigastrium nearly all gone.

The next morning, a restless night was reported. Gas and stool expelled. A. m., temperature 101.4, pulse 120; p. m., 102.6, pulse 124. Later in the day bowels moved freely with a great deal of gas. Distension practically all gone.

Next day a good night was reported. A. m., temperature 100.4, pulse 104; p. m., 101.8, pulse 112.

Next day, a. m. temperature 100.2, pulse 112; p. m. 101.8, pulse 116. Milk abundant in breasts. Abdomen not distended, nor tender. Good bowel movement. The next day, a. m. temperature 99.4, pulse 108; p. m. temperature 101, pulse 104. Good stool and flatus passed. Slough in side tender and inflamed.

Next day temperature, a. m., 99.4, pulse 100; p. m. temperature 100.6, pulse 106. Bowels moved well. Patient ate well and laughed and joked. Uterus seemed to be involuting well, but lochia was very dark and moderate in amount.

The next day, nine days after the birth, the patient suddenly had a free hemorrhage from the uterus. Both Dr. Thomas and I were called, but when we got there the bleeding had stopped. The patient's condition was good, pulse 120, little or no paleness. A digital examination of the uterus

disclosed another cotyledon, which was removed. A hot sterile douche was given and the uterus contracted firmly with no more bleeding. This was at 6 a. m. All went well until 12 noon, when the patient suddenly collapsed; the abdomen became greatly distended; there was no bleeding, and no vomiting. Pulse became more and more rapid and finally, in spite of all restoratives and stimulants, the patient died at 1:30 p. m.

No autopsy was obtained, but an undertaker was immediately called to prepare her, and as the distension was so great that she could not be placed in a casket, a trocar was passed into the point of greatest distension; just below the left costal border, and a great quantity of gas and a quart of milky fluid, smelling strongly of the Hoffman's anodyne that had been given her, was removed. This showed that the trocar was in the stomach. This tapping removed all the distension.

Second Case. Male, aged 17, schoolboy. Family history good, with no bearing on the trouble. When four years old he had scarlet fever, complicated by nasal diphtheria. At this time he had a left sided purulent otitis media with an "abscess that broke behind the ear." Otitis discharged for a year. When eight years old had an otitis on the right side that discharged six weeks.

Had nasal obstruction most of the time since he had scarlet fever and diphtheria. Never had stomach trouble other than slight attacks of "biliousness" once in a long time, and with which he seldom vomited. Health was, lately, unusually good, and appetite and digestion normal.

He was now suddenly seized with an antrum of Highmore infection, on the right side, as evidenced by a swelling over same; temperature of from 103 to 104, pulse 80 to 90, and by a foul-smelling discharge from the alveolar process, which occurred three days later. As the general condition did not improve after the discharge began, the opening near the first upper molar was enlarged, washed out, and drained. His septic condition continued, chills, fever from 99 to 105, pulse usually about 100.

Dr. Ladd now obtained from his blood, and from an infusion in his left knee, a pure culture of the staphylococcus pyogenes aureus.

He developed a dry pleurisy at the base of the left lung. His bowels and stomach during all this time showed nothing unusual. After two weeks his infection seemed to have spent itself and his temperature came down to 100, pulse to 100, and he felt much better. He had been taking a large amount of milk and water the last few days.

I noticed one evening a slight distension of the epigastrium and the next morning it was very

great, reaching to below the navel, and having a stomach-like outline. His face was anxious with sunken facies. He had a restless night and had tried to vomit continually, but could only raise a mouthful at a time of greenish fluid. His pulse had gone up to 120. He was very thirsty, urine scanty, bowels had moved. No dyspnea. Acute dilatation of stomach was the diagnosis. On passing the stomach tube, just as the end of the tube entered the stomach a great quantity of gas whistled out as if under high pressure, and was immediately followed by a jet of greenish-black flocculent fluid that spurted three feet. About two quarts of this greenish-black fluid was obtained. Lavage was practiced.

Patient felt greatly relieved, and said I could pass tube any time, as it gave him so much benefit. Abdomen was now flat. All feeding by mouth was stopped. Salt-solution and nutrient enemata were given, and strychnin hypodermatically. Pulse came down from 120 to 100. Temperature 100. Bowels moved.

In spite of his taking no fluid by mouth, his distension would rapidly recur and the tubing morning and evening would bring away about a quart of the greenish black fluid each time. His thirst was the most terrible and pitiful thing I have ever witnessed, in spite of the salt-solution enema and salt transfusions given, he seemed to be literally dying from thirst, and would delight in dabbling his hands in the water used to keep the tube warm while giving the salt transfusion. Before each tubing his pulse would rise twenty or thirty beats and he would get restless. He became more and more collapsed and died three days after the onset of the acute dilatation of the stomach, conscious to the last breath, and begging for water to the end. No autopsy was obtained.

Third Case. Male, aged 38, electrical engineer. Never had stomach trouble. Was operated upon three days after onset of his first attack of appendicitis, by C. A. Hamann. Appendix was found ruptured and gangrenous. Free pus and cloudy fluid in abdomen. Abdomen was sponged, and a rubber tube and gauze were used as a drain. Urine not abnormal. He vomited a little, after the ether. The next day he was greatly distended so that Traube's space was much enlarged and the area of liver dullness was absent. The epigastrium and left upper abdomen were prominent. Vomited greenish fluid in small amounts. But often tried to vomit without success. Felt very uneasy, was restless and facies were of peritoneal type. A stomach tube was passed and a great quantity of gas and a small quantity of fluid removed. Distension disappear-

ed and the patient felt much relieved. His pulse, which was 120, dropped down after gastric lavage to 72. After a soap-suds enema he passed a stool. He had no more trouble on the part of the stomach and his recovery was uninterrupted.

Fourth Case. Seen with C. J. Aldrich. Male, aged 36, a school teacher and an old syphilitic. Never was rugged, but never had any severe illness. Never had any stomach trouble before. About the middle of December, 1906, while working as a carpenter, and while overheated, was seized with a sudden colicky pain in his stomach, which continued for about a week, and then disappeared. Later he had some buzzing in the head, and nose bleed, and still later a sensation of numbness in his right leg as if it were asleep. A day or two after this he had pain in his knees. Soon he could not feel his urine pass and then he became ataxic. Knee jerks were exaggerated, the right more than the left, being almost a thigh clonus. Double Babinski toe sign present. Slight loss of sensation to pain, touch, and possibly to temperature to about the level of the first lumbar vertebra. Cremasteric, gluteal and epigastric reflexes present. Complained of a drawing sensation in back when he bent over, and of a burning sensation in the thighs when the hand was rubbed over them.

During the early part of February he had a slight rise of temperature, from a cystitis and pyelitis, resulting from catheterization, or from a dorsal decubitus that had developed. He now became completely paraplegic with incontinence of bowel and bladder.

February 13, his pulse suddenly rose to 140. He began to vomit greenish fluid, his abdomen was distended, especially in epigastrium. Traube's space was enlarged and liver dullness destroyed. He was in collapse. He suddenly vomited about two quarts of greenish fluid, but even afterwards showed marked distension. Vomiting was repeated a number of times during the next twenty-four hours. Stomach tube was passed, but in spite of the distension but little fluid was obtained. Probably it was not passed deep enough.

Patient died twenty-four hours after the onset of the acute dilatation of the stomach.

Autopsy showed stomach had been greatly distended, but unfortunately an undertaker's assistant had run a knife into it to relieve the distension just before the autopsy. However, it was easy to be seen that it had been greatly dilated. No dilatation of the duodenum was found. No compression of duodenum. Small intestines not in the true pelvis.

My first case was unusual in several respects. I have been able to find in the literature but one other case where acute dilatation of the stomach complicated a confinement. Thomson (49) described this case as due to a rupture of an ovarian abscess during delivery, which set up a purulent peritonitis and acute dilatation of the stomach. Then, too, the suddenness of the onset in my case and the relapse a week afterwards are not common. Kundrat (83) speaks of the conditions at delivery as being favorable for the occurrence of gastro-mesenteric ileus. This would seem reasonable from the sudden lowering of the intra-abdominal pressure; the possibility of adhesions between the mesentery or intestine and the contracting uterus which might cause a pull on the mesentery or a kink in the intestine; the ease with which the contracting uterus might push the small intestine into the true pelvis and by its weight and bulk hold the intestine there and thus favor a kink of the intestine, or a pull of the mesentery, are all possibilities favorable to the occurrence of the condition at the time of delivery. Then, too, it is conceivable that one might, when using Crede's method of expressing the placenta, seize a loop of intestine or the long mesentery in his grasp and thus exert a pull on the mesenteric root or cause a kink in the intestine so as to obstruct its lumen, and the lack of tone of the organs at this time would not favor nature's overcoming the hindrance.

My second case was quite classical. It was recognized early and treated in the most approved manner. The terrible, agonizing thirst that could neither be relieved by saline transfusion, enemata, nor drinking, made a lasting impression on my mind.

The post-operative case was mild and belongs to the most frequent type, having a general infection, a peritonitis, an anæsthetic, and an operation, all as possible causative factors, so frequently associated.

The case associated with a diffuse myelitis correspond to the cases reported by Kausch (186) and others. These cases associated with demonstrable nerve lesions greatly support the views advanced by Braun and Seidel (141) and others that the primary cause is an innervation disturbance.

Many theories and explanations have been advanced as to the cause, etiology, and *modus operandi* of this condition or symptom complex. This is but natural, for it is probable that we are dealing with a number of different types of acute dilatation of the stomach, due to a variety of causes and having a diverse and, as yet, unknown pathology.

The mooted question is whether, in the gastro-mesenteric ileus type, the gastric dilatation is primary or secondary to the compression or kinking of the duodenum. The vast majority of writers are in favor of a primary gastric dilatation and are supported by the fact that at most autopsies no compression or kink of the intestine nor dilatation of the duodenum has been found, showing that the dilatation of the stomach is primary in the majority of cases and that the compression of the duodenum, where we have the gastro-mesenteric ileus type, is probably secondary.

In the gastro-mesenteric ileus type of acute dilatation of the stomach, where the duodenum is found compressed by the root of the mesentery and intestine in the true pelvis, I think there can be no question but that the compression or kinking of the duodenum, due to the weight of the prolapsed small intestine pulling on the root of the mesentery and thus compressing the last portion of the duodenum against the vertebra, is an important secondary factor in keeping up the gastric and duodenal dilatation. We do not know in what order these different features make their appearance, i. e., whether a nervous or muscular derangement of the stomach first occurs and causes a dilatation that pushes the intestine into the pelvis and by the weight of the full stomach on the last portion of the duodenum aided by the compression of the mesentery, obstructs the lumen of the duodenum and thus keeps up the dilatation of the stomach. Or whether the first step is the prolapse of the intestine into the true pelvis from some unknown cause, which pulls on the mesentery so its root compresses the last portion of the duodenum against the spine and thus causes a dilatation of the duodenum and stomach.

As there has not been a compression of the duodenum nor a dilatation of the duodenum found in the majority of the cases coming to autopsy we cannot accept the view that the mesenteric pull is the usual cause of acute dilatation of the stomach and where the mesentery does seem to compress the duodenum, Albrecht (1) and all are unable to explain why the small intestine prolapses into the true pelvis and thus starts up the trouble. Also we know that it is not infrequent to find the small intestine in the true pelvis without arterio-mesenteric ileus being present.

Only twenty-seven of the two hundred and seventeen cases in the literature were found to be of the gastro-mesenteric ileus type.

A majority of students of the question and the best experimental work, which was done by Braun and Seidel (141) point to a primary gastric innervation disturbance as the cause.

The condition may occur at any age from infancy to senility. Both sexes are about equally affected. It was a post-operative complication in about 38% of the cases. Where the anæsthetic was stated, ether and chloroform were used in about equal frequency.

The time of onset varied from during the operation or anæsthesia, as in Robb's case, to two weeks after operation (Robson's case), but occurred most frequently on the third or fourth day.

It has occurred many times after trauma, often during the course of the acute or chronic infections, or during the convalescence from serious or debilitating diseases. Overeating has been a common cause, as well as eating undigestible food or drinking charged drinks.

In the majority of cases no previous stomach trouble had been present.

SYMPTOMS AND PHYSICAL SIGNS.—The most important of these are vomiting of large amounts of greenish or brownish fluid, nausea, severe thirst, abdominal distension, pain in abdomen, collapse, constipation, scanty urination and succussion splashing.

The patient seems anxious, feels oppressed, has a sensation of weight in the epigastrium, is nauseated, soon vomits large or small amounts of green or brownish fluid; vomiting often of the regurgitant or projectal type; abdomen is distended at first only in the gastric region, but soon on the left side as well, and later becomes general. There is a little or no tenderness of the abdomen. Succussion splash present. Thirst great. Pulse becomes rapid and small. Temperature normal or subnormal. Flatus is usually passed and constipation or diarrhea is present. Vomiting occurs of more than is ingested. The presence of dyspnea, cyanosis, hiccough, and scanty urination. The patient is later in collapse with Hippocratic facies. This is the typical picture of acute dilatation of the stomach. The vomiting, however, may be absent, and there may be no distension of the abdomen and the dilatation of the stomach only evidenced by the enlargement of Traube's space and by the lessening or absence of the normal area of liver dullness. Visible peristalsis has been seen over the gastric region in a few reported cases.

The duration of the trouble has varied greatly from almost instant death to the cases that recover promptly when wisely treated or end fatally in a few days. Some cases have gradually merged into cases of chronic dilatation.

DIAGNOSIS.—The first case seen by any observer has seldom been correctly diagnosed. After once seeing a case or by having the subject in

mind it may usually be recognized. Peritonitis has been the wrong diagnosis most often made and may be differentiated by the absence of marked tenderness, the presence of a normal or subnormal temperature and of succussion splash; the absence of leukocytosis, the absence of rigidity of the abdominal muscles; the presence of frequent vomiting of large amounts of the characteristic green fluid and by passing the stomach tube. Frequently a diagnosis of an ovarian or pancreatic cyst has been made.

PROGNOSIS.—The prognosis is not good, for of the 217 cases reported over 63% have died.

PATHOLOGY.—The stomach is always found dilated and its walls often thinned by the stretching. The duodenum has been found dilated in some cases. The dilatation has extended to the point where the root of the mesentery crossed, in some cases, but in others the dilatation has only affected the first portion of the duodenum, and in still other cases the ileum and even the colon have shared in the dilatation. Other organs are usually found normal.

TREATMENT.—The stomach tube should be passed early and often (even if the patient is moribund). Pass it deep down into the stomach so as to drain that part of the stomach stretched down to the pelvis. It is helpful in getting all the fluid out to have the pelvis elevated when the tube is passed. The patient should be kept off the back and should be induced to assume the knee-chest position as much as his strength will allow, pillows being used to support him. The rest of the time he should lie on his right side or on abdomen.

All food and drink should be prohibited and salt-solution and nutrient enemas given, together with saline-solution transfusions.

Operative treatment has been advised, and frequently, owing to a mistaken diagnosis, a gastrotomy has been done, but always with fatal results. Mayo Robson (74) thinks that in the desperate cases gastrojejunostomy should always be performed. Byron Robinson (45 and 158) reports a cure after an operation. Robinson thinks an operation should always be done and advises severing the duodenum on the right side of the mesenteric vessels and securing it to the jejunum anterior to the vessels.

The operative idea is based on the belief that the trouble is due to the compression of the duodenum by the root of the mesentery, which is doubtful, for in most cases the duodenum has not been found compressed. Tuffier's (64) case occurred after a gastroenterostomy, and at autopsy, both openings of exit were found patulous,

and yet dilatation of the stomach had occurred. Cannon and Blake (165) have pointed out that gastro-jejunostomy is not a drainage operation.

It is important to remember that after the condition is once established it constitutes a vicious cycle, the more the ingesta by mouth or the gastric secretion, the greater the dilatation and in the cases where the duodenum is compressed we have a greater pressure of the dilated stomach on the duodenum and against the small intestine so as to increase the pull on the mesentery and thus tend to increase the obstruction.

For a complete review of this subject, see author's article in *Annals of Surgery*, 1908.

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A CLINICAL STUDY OF FIVE HUNDRED GASTRIC CASES.

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The last five hundred patients who have been referred to me or who have consulted me for so-called stomach trouble form the basis of this study. In many cases not included in this series the diagnosis of some disease other than gastric was so clear that test meals were not given. Therefore, the data will not show what proportion of persons who consult the internist for indigestion have normal digestive organs. A detailed consideration of the cases should be prefaced by the statement that examinations of hemoglobin percentage, of stained specimens of the blood, of the urine, and of the sputum when there was expectoration, were made as a routine procedure along with the tests of feces when indicated. At least one examination of the stomach contents after a test meal was made in each one of these cases. Chemical and microscopic examinations of the urine are made as a regular measure before test meals are administered. This fact accounts for the omission of some cases of chronic nephritis in this series, such patients usually complaining of digestive disturbance as an early symptom. The Ewald test breakfast was given, and in doubtful cases it was repeated and the Riegel test dinner was given. Great importance should be attached to the time at which a test breakfast is taken. These patients

ate the meal at the usual breakfast hour, so far as this was practicable.

TABLE 1.

Disease.	No. of Cases.	Per-cent- age.
Aneurysm	1	0.2
Neurosis	101	20.2
Ulcer of stomach or duodenum.....	82	16.3
Achylia gastrica	53	10.5
Carcinoma ventriculi	42	8.4
Hyperchlorhydria	41	8.2
Cholelithiasis	40	8
Normal	26	5.5
Enteroptosis	25	5
Pulmonary tuberculosis	24	4.7
Intestinal diseases, including the rectum	20	4
Pernicious anemia	7	1.4
Syphilitic gumma of stomach.....	6	1.2
Diabetes mellitus	6	1.2
Arteriosclerosis	5	1
Appendicitis	4	0.8
Epilepsy	4	0.8
Valvular heart disease.....	4	0.8
Simple anemia	3	0.6
Graves disease	3	0.6
Insanity	2	0.4
Idiopathic cardiospasm	1	0.2
	500	100.0

In a study of the foregoing table the most interesting observation is that 55.2% of these 500 patients who were examined for stomach disease had disease of some other organ, or no discoverable disease of any sort. Thus there were discovered one case of aneurysm of the aorta, two insane, three with early signs of Graves' disease, three who had simple anemia. There were four each with valvular heart disease, epilepsy and appendicitis. Five had arteriosclerosis, six diabetes mellitus, seven pernicious anemia. One patient had idiopathic cardiospasm and was cured by operation. Twenty patients or four percent who complained of stomach disturbance were found to have some form of intestinal disease. Twenty-six, or five and six-tenths percent, were classed as normal. The history of these cases was such that they could not be classed as neurosis, their gastric symptoms being so insignificant. No disease of other organs could be demonstrated.

Syphilitic gumma of the stomach was diagnosed in six cases, in each one of which a gastric tumor was demonstrable. In four cases, other physicians had made a diagnosis of cancer of the stomach. A history of syphilis in cases of apparent cancer of the stomach demands a therapeutic test before operation and before the patient is given up to die. These six patients were cured by inunctions of mercury, together with

the administration of potassium iodid. The tumor disappeared and the patients regained normal health. Twenty-five had enteroptosis and twenty-four had pulmonary tuberculosis. It is appalling to observe how many patients are treated for dyspepsia, when they are actually tubercular. If fewer people were treated for an indefinite dyspepsia the death rate from tuberculosis would be reduced. Of the forty cases of gall stones or gall bladder disease, twenty were males and twenty females. In four instances, cancer of the stomach was erroneously diagnosed. Such a mistake is easily made if the patient has neither typical colic nor jaundice, but a continuous pain, loss of weight and appetite with anacidity, and evidence of motor insufficiency of the stomach. Hyperchlorhydria made up eight and two-tenths percent, or forty-one cases. Of these, four had also valvular disease of the heart and one developed cancer of the stomach two years after his first examination. Thirty-one were males and ten females, twenty-one were cured, three improved, and seven unimproved by treatment. The treatment consisted in the use of a largely proteid diet, frequent meals, exercise, and antacid medication. Such an experience does not prejudice one in favor of the carbohydrate diet now being lauded for this condition.

There were one hundred and one cases of neurosis, or 20.2%. The classification of cases under the head of neurosis includes those of nervous vomiting, sitophobia and eye strain. The great majority of these one hundred and one patients complained of digestive disturbance, for which no explanation could be found in the chemistry of the stomach contents, in the motility of the stomach, or in disease of other organs. A disordered nervous system, neurasthenia, and similar states seemed to be the etiologic factors. Ten of this number had a parent or near relative who had died of cancer of the stomach. In my series a history of carcinoma ventriculi in the family seemed to have an etiologic effect in neurasthenia gastrica. Twenty-five patients with neurosis, whose gastric disturbance was the principal part of their ailment, were treated in a hospital with massage, baths, diet, rest in bed, etc. Of these, fifteen were cured, four improved and six were not benefited. The majority of neurasthenic patients with prominent gastric symptoms are cured if given hospital care under appropriate treatment. Office treatment of such patients is very unsatisfactory, though these patients do at times regain health when one least expects such a result.

Ulcer of the stomach was present in 82 pa-

tients, or 16.4%. This embraces simple ulcer, chronic ulcer with or without stenosis and duodenal ulcer. The wide divergence in the clinical picture of simple peptic ulcer and chronic ulcer with subsequent stenosis of the pylorus is such that these two conditions should be considered separately. Of the 82 cases, five had ulcer of the duodenum with perforation. Duodenal and gastric ulcer are properly considered under one heading. Upon 32 patients with ulcer a gastroenterostomy was performed. Two who had hour-glass contraction due to ulcer died after the operation. A diagnosis of pyloric stenosis due to ulcer had been made in each of these cases before operation. Twenty-four patients with chronic ulcer recovered and were cured, all of whom had complete or partial stenosis of the pylorus, while six died. The two remaining patients who did not have stenosis were rendered more miserable after the operation. Twenty-one were treated in a hospital by rest in bed and diet after the Leube-Rosenthal method. Twenty-nine patients were either returned to their family physician or their subsequent history could not be followed. Of the cases treated medically in the hospital, 17 were cured, two died, and two were unimproved. The acidity due to hydrochloric acid was found reduced in 80% of cases with chronic ulcer with stenosis.

The diagnosis of this affection is difficult, as one is likely to be misled if he relies entirely on the gastric findings after only one test meal. In 20 per cent in this series there was hyperacidity, while in all the cases lavage seven hours after a test dinner showed the presence of food in the stomach. In one case a watermelon seed was found which must have been ingested at least two months previously. The diagnosis can only be made after a careful study of the history which reveals months or usually years of indigestion with pain after food, heartburn, occasional vomiting, periods in which the intake of food is diminished, and finally loss of weight.

The detection of a small regular tumor in the pyloric region accompanied with dilatation of the stomach is helpful in the diagnosis. Pyloric stenosis due to ulcer may be mistaken for gall stones. This error was made in two cases, the gall stones present in the duct acting as the cause of the obstruction at the pylorus. The treatment of patients with simple ulcer should be carried out in a hospital by medical means, as in these cases surgery offers no relief. Patients who have chronic ulcer with stenosis and who are free from active symptoms should be treated by diet, lavage and exercise. Those patients who have active symptoms, particularly hematemesis, must be put to

bed for from three to six weeks under medical care. Many may be cured in this manner and many more may be placed on a better footing as to nutrition and comfort. Patients who do not improve markedly by intelligent and competent treatment over a period of eight weeks in a hospital should be referred to the surgeon for operation.

The danger from perforation, carcinomatous change and the series of complications which arise in uncured cases of chronic gastric ulcer with stenosis is so great that there should be no delay in resort to surgery. No more brilliant results are to be seen in the practice of surgery than the return to health of an emaciated patient after a gastroenterostomy. The internist and the surgeon who work harmoniously with the sole purpose of doing the best for patients ill with ulcer will accomplish gratifying results. The internist should assist in the diagnosis and carry out the medical treatment. When this plan is futile the internist should at once summon the aid of the surgeon. On his part the surgeon should accept in a large measure the verdict of the internist as to the necessity for surgical intervention, even though this will occasionally result in the performance of an exploratory operation.

The post-operative dietetic treatment should not be entrusted to the nurse in charge. The surgeon's duty is to place this very important work in the hands of the internist whose business it is to be well versed in the art of feeding.

TABLE II—ULCER CASES.

*Operative cases, 32.		
Cured	24	75%
No improvement	2	6.25%
Died†	6	18.75%
Treated medically in hospital, 21.		
Cured	17	80.95%
Unimproved	2	9.52%
Died	2	9.52%

Fifty-three cases, or 10.6%, were achylia gastrica. The interesting features in this class are that one had diabetes mellitus, four arteriosclerosis, two valvular heart disease, and eighteen had cancer of some organ other than the stomach. Physicians who follow blindly the chemical findings in their cases will often diagnose cancer of the stomach when the malignant growth is located in some other organ. Dr. Friedenwald has called attention in detail to this subject in a recent issue of the N. Y. Med. Journal.

*Operations were performed by W. D. Hamilton, C. S. Hamilton, J. F. Baldwin, or Sherman Leach.

†Four of the patients who died had duodenal ulcer with perforation.

There were forty-two cases of cancer of the stomach, or 8.4%, in this series of 500 cases. Thirty-six were males, six were females. In six the cancer had extended to other organs. The diagnosis was confirmed in thirty-six cases, in twenty-one by operation, and in fourteen by post-mortem examination. Thirty-two had pyloric cancer, two cancer of the cardia, one cancer of the cardia and esophagus. Five died having had no operation and without post-mortem. Free hydrochloric acid was absent in twenty-eight cases, was reduced below fifteen in five cases, and was normal in five cases, and was above forty in four cases.

Ages	25-30	30-40	40-50	50-60	60-65	over 65
	2	5	13	11	9	2

A consideration of the ages of the patients shows the futility of allowing this point to bear much weight in the diagnosis. Many interesting details might be presented from this series of forty-two cases of gastric carcinoma. Three phases of the subject appeal to me as the most important.

(1) We must learn to diagnose cancer of the stomach earlier.

(2) Surgeons must be willing to operate in doubtful cases, even though occasionally nothing abnormal is found.

(3) In the presence of apparently inoperable cancer of the stomach, the patient must be given the chance, if a partial gastrectomy is at all practicable. A case reported by me in the New York Med. Journal for August 4, 1906, illustrates the above contention. Patient, male, æt. 52, had an epigastric tumor which was diagnosed cancer of the stomach and operation was advised. He postponed operation for five months. At operation the pylorus and part of the fundus, together with the glands, were found to be invaded by a growth resembling carcinoma. A partial gastrectomy was done, and the patient is alive and well, doing the work of a laboring man daily, three years after the operation. A second case further explains the point at issue. On May 15, 1907, Mr. H., æt. 44, was referred to me for diagnosis with a provisional diagnosis by the surgeon of gall stones. Father died of asthma, mother living and well, one sister dead of tuberculosis. Patient was never sick before the present illness and never had venereal disease. Illness began one month ago; symptoms, belching of sour gas, pain after meals, pain extending to right shoulder, no jaundice, the kind of food had no effect on the pain, and had lost five pounds in one month. He ex-

perienced a gnawing sensation after food, but had no cachexia. Patient had an anxious look, skin dark, heart and lungs normal, no tumors or abnormalities could be discovered in the abdomen, succussion over stomach could not be elicited. Hemoglobin 75% (von Fleischl), stained blood specimens showed the presence of a secondary anemia, and the urine was normal both by chemical tests and microscopically. The stomach contents removed after a test breakfast were dark brown in appearance, free hydrochloric acid absent, total acidity nil, contents neutral. The spectroscope showed the presence of blood, as did also the aloin test. Though no tumor could be felt and no cachexia was present, a strong presumptive diagnosis of carcinoma of the stomach was made, and immediate exploration advised. The patient refused operation, as he did not consider himself sufficiently ill. On August 12, he returned to Mt. Carmel Hospital from his home in the northern part of the state for operation.

At this time he was emaciated, had lost forty-five pounds since the first examination, or fifty pounds in all. A tumor was readily palpable in the epigastrium and seemed to be fixed. There was a grave anemia, and the stomach contents showed the same characteristics as at first test, except for the presence of more blood. Exploration showed extensive cancer of the stomach, liver, and pancreas, which was inoperable.

Among the future advances in the field of digestive diseases we shall hope for a more careful differential diagnosis, a more successful treatment of chronic gastric ulcer, the earlier recognition, and more frequent cure of gastric carcinoma.

SURGERY OF THE STOMACH BASED ON ONE HUNDRED AND FOUR PERSONAL CASES.

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In order that I may carry out my part in this symposium, I will omit detailed notice of surgical technique and the various surgical procedures and limit myself to a discussion of what surgery today may be expected to accomplish in diseases of the stomach.

A discussion of surgery of the stomach almost presupposes the application of gastro-enterostomy and gastric resection as the principal effective surgical methods. The advances made in gastric surgery have been mainly along two lines,

(1) improvement in the technique, (2) a better understanding of surgical indications.

The improvement of the technique is based very largely upon a better knowledge of the mechanics and physiology of the stomach and intestines. Through the researches of Pawlow, Cannon and many other physiologists, and the experience of surgeons, it was found that the physiology of the stomach and intestines is of much more importance than the mechanics. It is no longer contended that the stomach is a passive receptacle—a mere bag; that drainage is necessarily at the most dependent point, or even that there is *any* drainage in gastro-enterostomy. The physiological action of the stomach, pylorus and intestines is the predominating factor in the result; and operative measures must be made in harmony with these physiological actions. Because an opening is made between the most dependent portion of the stomach and jejunum or duodenum, it does not by any means cause the gastric contents to pass through this opening. This opening may be but little used and the pylorus still serve its usual function. It is not to be expected that the wonderful mechanism of the propulsion of food through the pylorus, through the agency of the acid-alkaline reflex, is necessarily modified by any mere mechanical opening. The improvement in the immediate operative results was due largely to the perfection of the suture method, so that all mechanical devices might be abolished and the line of coaptation would be uniformly healed. The use of intestinal clamps to prevent soiling and infection, the round intestinal needle, and the linen suture added largely their part. But the greatest factor of all has been the individual experience in a large number of cases, giving opportunity for the development of surgical judgment and perfection of technique. Every surgeon must recall the limitations of his first operation as compared with his fiftieth operation. The dreaded vicious circle has now been all but eliminated from surgery of the stomach by the employment of the no loop, posterior gastro-enterostomy.

The perfection of the technique is best expressed by the falling mortality in pylorotomy, from 50 per cent. to perhaps 5 per cent. Indeed, any portion of the stomach may be resected—the pylorus, its middle, or the greater part of it—with relative safety.

I will first speak of the limitations of surgical treatment. In simple dilatation of the stomach without mechanical obstruction, especially in neurasthenic subjects, the net result of operative intervention is a distinct complication of the dis-

ease with no benefit. Little then need be expected from surgery in gastropotosis. Gastroplication, like gastropexy, has been a surgical disappointment. Plastic operations for benign stenosis of the pylorus have in too many instances been followed by recurrence. Gastro-enterostomy for simple ulcers without stenosis has not made good its promise. A study of the statistics of hemorrhage from gastric ulcer will show that in view of the effectiveness of the present medical treatment, bleeding from gastric ulcers should for the present remain in the hands of the internist. Heretofore the cases operated upon have been those reduced to the extreme by hemorrhage and therefore poor operative risks. The medical treatment with starvation and the use of adrenalin is so effective that fewer cases reach this degree of gravity.

We now have a new resource in the direct transfusion of blood, by which a patient who is exsanguinated and who has not yielded to medical treatment and obviously will not recover, may be restored to the status of a good surgical risk. I would advise in these cases a direct transfusion of blood and immediate operation for the arrest of hemorrhage. From analogous cases, I should say that we may look forward in this small group of cases with confidence to good surgical results.

In duodenal ulcers, however, the problem is entirely different. A gastro-enterostomy, especially with a pyloric closure, is followed by very excellent results. I found that experimentally as well as clinically the pylorus cannot be closed permanently by any method of suture, but by a careful plication with linen sutures the pylorus may be closed for a period of from three to six months, when it will reopen. If, then, in making a gastro-enterostomy for the relief of a duodenal ulcer, we close the pylorus with such application, it is not at all unlikely that the three or six months will be sufficient time for the complete healing of the ulcer, when the pylorus may with safety reopen. However, should the ulcer recur after that time, a simple division of the first portion of the duodenum with an infolding of the ends (a safe operation with almost no mortality) would be justified and would probably give permanent relief.

In non-malignant obstruction of the pylorus, whether in infancy or as the result of ulcers or tumors, gastro-enterostomy is the ideal operation. The results are clinically most satisfactory and surgery of the stomach is here seen at its best. In any case of pyloric obstruction, whether it be sufficient to endanger life from starvation or whether to cause chronic invalidism from lack

of nourishment and the effect of the gastric dilatation, gastro-enterostomy is indicated.

In certain cases of adhesion following inflammation of the gall bladder or ducts, kinking or fixing of the stomach sometimes causes marked obstruction, and may be relieved by removing the adhesions.

The hour-glass stomach—a rare disease—is well relieved by surgical measures.

We come last to the consideration of malignant tumors of the stomach. This still remains the most serious problem of gastric diseases. Since 1900 there have appeared from several clinics careful studies of a large series of cases of gastric carcinoma from the non-operative as well as the operative standpoint, so that we may formulate more clearly the present status. The principal statistics bearing upon this subject are from the clinics of Kroenlein, Miculiks, and Mayo. The details of Kroenlein and Miculiks are perhaps more fully worked out with reference to the inoperable cases. The most favorable statistics thus far presented are, as one would presuppose, from the Mayo clinic.

In a given case of inoperable cancer of the stomach without pyloric obstruction the expectancy of life and the comfort of living is diminished by gastro-enterostomy; in a similar case with pyloric obstruction the expectancy of life and the comfort of living is distinctly increased by gastro-enterostomy; in cancer of the stomach in the operable stage the expectancy of life and the comfort of living is markedly increased by a radical resection. In this case, too, there is always a distinct and growing chance of a permanent cure. Even in the cases in which a permanent cure is not possible, the removal of a cancerous mass, the secretions of which are constantly changing the metabolism of the body, and the probability of less painful metastatic carcinoma, which finally causes death, make it well worth while to undergo the operative ordeal. Were the stomach superficially situated so that a growing tumor could not escape early notice, undoubtedly the operative result of gastric carcinoma would be as encouraging as in other favorable fields. But because of the latency of the onset, the absence of positive symptoms, and the shielded position of the parts of the stomach most often involved, a sufficiently early diagnosis, enabling a cure by surgical operation, is rarely made.

Following simple gastro-enterostomy in obstructive cases, I have seen patients gain greatly in weight, strength, and the enjoyment of life.

Some of these patients felt certain that they would be permanently cured.

In resection cases, on the whole, I have seen the best results, for here the expectancy of life is distinctly increased.

My own experience accords entirely with that expressed by so many good clinicians, both the internist and the surgeon, that if we are ever to make progress in the operative cures in gastric carcinoma it will be either by the discovery of some new clinical methods, whereby the case may be early diagnosed, or by subjecting a larger number of cases of suspected carcinoma to exploratory incision. On behalf of exploratory operation, I would say that it may be done with entire safety under cocain-morphia anesthesia, or under nitrous oxide. A very small incision enables one to make exploration by the finger or even by sight, and should it prove to be non-malignant, a few stitches may close the insignificant opening and the patient has taken no appreciable risk, has lost but little time, and certainly has suffered but slightly. In such an exploration in any case of suspected carcinoma, either carcinoma or the absence of carcinoma is established. If it is established, then how much better the chances for permanent cure. If it is not a carcinoma, who would not endure this slight inspection for the sake of being assured that he has not a cancer?

My personal experience in surgery of the stomach consists of one hundred and four operative cases. These have been divided into three groups: (1) Simple operations, including gastro-enterostomy, gastro-plication, gastro-duodenostomy, entero-enterostomy, gastrectomy, in fact, all the non-malignant, uncomplicated operations; (2) operations for gastric malignant growths; (3) operations for perforation.

Of the first group there were fifty-six, with one death. For cancer of the stomach there were forty operative cases, with seven deaths. All of these deaths occurred among the first twenty cases. The last twenty operative cases have recovered. In reviewing these early cases in the preparation of this paper, I was very much impressed with the hopeful way in which I undertook to do the impossible. The conclusion reached was that the difference between the results of the first twenty cases and the last twenty cases represents the advance in surgery during this period of time.

The eight remaining cases were done as emergencies for perforations of gastric or duodenal ulcers, for gun-shot wounds or acute hemorrhage. Of this group of eight cases, four died. The

surgical indications in acute perforation, whether from ulcer or trauma, are no longer debatable. The operation should be done at the very earliest possible moment.

We may summarize as follows: Surgical treatment either has failed or has made a very poor showing in simple dilatation of the stomach without obstruction, especially in neurasthenic subjects; in splanchnoptosis; in acute gastric ulcer without obstruction; and in cancer of the stomach without obstruction of the pylorus, yet too far advanced for excision. Surgery is less effective than other methods in hemorrhage from ulcer. In non-malignant obstruction of the pylorus surgery may give prompt and lasting relief. In gastric carcinoma with obstruction of the pylorus, yet inoperable, simple gastro-enterostomy is the best treatment. In cancer of the stomach, in its resection stage, complete excision increases the expectancy of life and the comfort of living, and offers a definite percentage of chances of cure.

Finally, when the internist and the surgeon agree that the surgical operation, with the exception of that for malignant disease, is but an incident in the therapy of a given case and that the joint management of such cases will bring out the most effective methods from both, the greatest number of cures in gastric cases will have been secured.

VACCINE THERAPY.

In what infections can we say vaccine therapy is of definite value:

First—*Staphylococcus Infections*: Acne, furunculosis, carbuncles, and the more generalized forms of staphylococcus invasion.

Second—Infections by the *Colon Bacillus*: Pyelitis, cystitis, pleuritis.

Third—Infections by the *Tubercle Bacillus*, especially in localized tuberculosis of the skin, bones, joints and genito-urinary tract.

We have not yet had sufficient experience in the treatment of pulmonary tuberculosis to draw conclusions. Those who have say that incipient cases are cured more quickly when the usual hygienic, dietetic and climatic measures are supplemented by vaccine therapy.

Fourth—As to infections by the gonococcus, here we can say, that, judging from about twenty cases, a person infected by that organism, acutely or chronically, usually has a low index; that this low index can be invariably raised and maintained at a higher level.

After a sufficient number of cases have been treated by the gonococcus vaccine without other measures we will be able to estimate actual results. The outlook here is particularly promising in spite of the fact that the technique is difficult.

—John C. Hollister, M. D.

THE NEED OF STATE ORGANIZATION OF EYE, EAR, NOSE AND THROAT PRACTITIONERS.

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[Chairman's Address at the Annual Session of the Eye, Ear, Nose and Throat Section of the Ohio State Medical Association, at Cedar Point, August 28-30, 1907.]

With the steady and rapid advancement of scientific knowledge and methods the benefits of association increase many fold. The interchange of facts and theories, the striking hands with those who are successful in the same pursuits are potent factors in progress. While the primary purpose of medical organization has been the development of scientific knowledge, it is now becoming necessary for the protection of our professional ideals. Medicine has through all ages been hampered by the promulgation of absurd methods of healing, the result of incorrect and illogical reasoning based on false premises, which have deceived even the elect.

In recent years the patent medicine manufacturer has been preying on a credulous public to an appalling degree, utilizing every available agency, including the press, in furthering his pernicious trade. People ignorant of their physical natures, open to the influence of morbid suggestions and eager in their desire for relief from imagined, sometimes real, symptoms contribute to the enrichment of unprincipled manufacturers by purchasing inert or poisonous remedies. The members of the medical profession have wrongfully allowed this destructive practice to go on, abstaining from attacks on false and misleading statements, as unworthy the consideration of an honorable profession. In recent years, however, protests have arisen against this evil, especially from non-medical men. Periodicals, notably Collier's, are conducting this humane fight in a manner destined to accomplish far reaching results in enlightening an unsuspecting people. It may soon become necessary to wrest the medical education of the public from the quack and charlatan and entrust it to various medical publication committees. Medical men unhesitatingly should take an active part in things pertaining to the betterment of the public health and welfare.

"Sure cure," "never fail," "infallible remedies" proved by numerous dictated or purchased testimonials, are supplied for all diseases. There are several magic eye waters now on the market that will cure almost every possible eye disease for

which the ophthalmologist has found even a name. Think of the various "absorption cures" for cataract, the "catarrh cures" and ear drums. Alluring advertisements meet the gaze everywhere. It is a deplorable fact that many persons with choroido-retinitis, iritis, or glaucoma waste valuable time on these remedies, until too late.

Proprietary remedies for the eyes are harmful in different ways:

1. They are practically inert in all but the simplest conditions.

2. They waste money and too frequently, the valuable, often precious, time of the victim. By the sufferer consulting various non-medical salesmen in the vain hope of finding relief, a temporary condition, if unrecognized and neglected, may become a progressive disease until finally, if a competent ophthalmic surgeon is consulted, it may be too late.

3. They enable those who are not skilled in diagnosis and treatment, who are not licensed physicians, to pose as such by selling medicines, whereas, in nearly all cases, to make a correct diagnosis requires the training and skill of a regular graduate in medicine.

Many opticians employ these proprietary remedies since an unbroken package may be sold by any one. Advertisers in some of the optical journals state that "the people look to the refractionist for relief from eye affections" and that "he will be looked upon as an authority on eyes" if he uses their products. One of these advertising monstrosities stated that "the blood vessels of the retina and choroid are often swollen when refractive errors are present, pushing the retina forward and it is not possible to correct the errors, due to the movement back and forth of the retina," unless a certain preparation is used, which is said "to meet this defective circulation."

Eye, ear, nose and throat practitioners as members of the State Medical Association should be active in its support. This specialty must not be divorced from the general art of healing. This would be a distinct step backward and the public would be compelled to pay a severe penalty.

There are many reasons why we should be organized in affiliation with the State Medical Association. In former years, but few papers on our work were read before the general sessions, and since they had to be of a general nature, they did not attract many specialists to the meeting, and their reception by the members of the society was usually not very enthusiastic. We need to become acquainted with practitioners throughout the state doing other lines of work and with each other. Every one should endeavor

to become acquainted with others who practice the same specialty within a distance of one hundred miles, as this will give rise to a better understanding between members of the profession.

Our meetings held at the same time as those of the State Association give us the opportunity to meet with other members of the Association, and thus to exchange ideas. A part of the program each year should be made attractive to men doing general practice but who are also interested in these specialties.

It is often too expensive and takes too much time to attend the national meetings, but this cannot be urged against state meetings. These will stimulate scientific research, resulting in better practitioners. There will be a much larger attendance of eye, ear, nose and throat practitioners if our meetings are held on the first, and possibly also on the second day of the regular meeting, as the men from distant parts are more likely to come when they can travel with friends and enjoy the social entertainments with them.

A section or society could also formulate rules that should govern the relations of its members among themselves and with general practitioners—special rules of ethics—so that the general practitioner will not need to consider the competition of the specialist in general practice. In certain respects there is no definite dividing line between the practice of the specialist and that of the general practitioner. This should be determined by consultation between the two so that misunderstandings cannot exist. In cases where the eye, ear, nose or throat is involved as a result of constitutional disease, the family physician and specialist should co-operate for the good of the patient.

Proper methods of examining school children should be introduced into every city and county and general medical supervision of the health of school children encouraged. Care should be taken that in every school these methods of examination are carried out. The vision charts should not contain the name of any refractionist and should preferably be uniform, probably published by the State Board of Education. Each year the pupils in normal schools and colleges should be taught the importance of careful medical examinations.

So little is known about the practice of our specialty that even a general practitioner may send his patients to opticians or "optometrists." This may be done for several reasons—through insufficient information, sheer thoughtlessness, or because realizing how little he himself knows about refraction, he questions how another medi-

cal graduate could know much more. He may consider the specialist's fees large and may, therefore, be jealous of the specialist. The practitioner may desire the optician, his friends and customers as patients and may fear, as before stated, that the specialist will step outside his work and prescribe for his patient.

The general practitioner knowing that some specialists(?) are manufactured in six weeks, naturally infers either that there is little skill required in prescribing lenses or that the knowledge required by the specialist is very superficial, and, therefore, considers the latter unworthy to treat his patients. Is it right and proper that post-graduate schools and some hospitals give large certificates or diplomas certifying to a four or six weeks' or three months' course in eye, ear, nose and throat? A few of these institutions actually gave certificates to opticians who had never taken a medical course and who by this means later, in states where examinations were not required, illegally obtained licenses to practice medicine and surgery, the same as medical graduates.

Today the general practitioner is usually as well equipped to do dental work in a month or two of post-graduate training as to prescribe proper lenses in ametropia after a like amount of study. Those who do refraction work incorrectly, because of insufficient training and an inadequate knowledge of optical principles, shamefully stigmatize and place opprobrium upon the medical profession. No doubt, not a few opticians can prescribe better for the average healthy eye than some poorly prepared physicians who cannot take advantage of the benefits derived from the use of cycloplegics.

Specialists must be ethical and well trained in general medicine and in their specialty in order to deserve the respect, recommendation and support of their fellow practitioners. Some of our large medical schools should establish thorough courses in all branches of ophthalmology, so that students could elect to graduate not only in medicine, but also in ophthalmology. In the future, some universities will have an ophthalmological department in connection with the school of medicine just as they now have a dental department.

Intelligent people know that to practice a specialty in any art or science, as in medicine or law, requires a good general knowledge of the underlying principles of the art or science. No organic part can be separated from the whole upon which it depends without being changed, and the eye, ear, nose and throat practitioner should first have a good general education in the science

and art of medicine and surgery. He should have special training, not only in the anatomy, physiology and pathology of the parts he wishes to treat, but also intimate knowledge of the relationship of these organs to others, and of their diseases to the diseases of other parts, or general diseases which may affect them.

Specialists must never stoop to give any unnecessary treatment, to make any more visits than necessary, or to prescribe lenses except when needed. They should attempt to do everything possible to prevent the dishonest division of fees and should absolutely never accept commissions from opticians. In organizing, they should not only endeavor to increase their knowledge and skill in treating patients who may seek their advice, but also being frequent witnesses of the enormities committed by quackery, should seek to enlighten the general profession and the public and to expose "the devices and pretensions of artful empirics and impostors."

It should be pointed out to the general profession why any one who prescribes lenses for defective and diseased eyes, should be well grounded in general medicine and surgery, as otherwise he would be frequently giving lenses where other treatment alone is indicated and should sometimes be administered at the earliest possible moment. Such a prescriber of lenses for sick, defective eyes should be a good diagnostician and know when other treatment is necessary, in short, a physician. For the protection of the public any one attempting to treat any disease of any organ or part of the human body should be qualified to use at least ordinary medical skill in making a diagnosis. The fact should be emphasized that a glaucomatous patient may become blind in untrained hands while their lenses are being repeatedly changed or while they wait for the supposed ripening of their cataract. Since sight, health and, many times, life is dependent upon a correct and early diagnosis, it should be understood that neglect and improper treatment may lead to irreparable harm. That cataract, if recognized early, may sometimes be retarded in its progress by proper measures, should be explained. It is sometimes caused by diseases in the eye, difficult to recognize, which can only be diagnosed after a most careful examination by one thoroughly trained in the recognition of the appearances of the fundus in health and in disease.

It should be made plain that eyes which are not functioning properly are often diseased, and that they should, therefore, be treated by carefully prescribed lenses, as a diseased heart or other organ would be treated medically. Not

only should central vision be tested but frequently the ophthalmoscope and the perimeter should be used intelligently. The examiner should be able to recognize corneal turbidities, lenticular or vitreous opacities, nerve, choroidal or retinal lesions, often peripheral, and to study the color fields of vision, movements of the pupil, states of anesthesia or hyperesthesia of even distant parts, general reflex states, etc.

The opticians in their journals often state that optometry should be recognized the same as dentistry or pharmacy. They frequently, but incorrectly, assert that physicians fought the passage of dental laws, and attempt to draw a parallel between the securing of dental and optical legislation. They forget that dental colleges require matriculates to have completed at least two years in the high school. They must then attend college three years of thirty weeks each. Even to practice osteopathy, which is said not to constitute the practice of medicine, it is necessary in this state to have a good preliminary education, to have studied three years of nine months each in one of their colleges and to have passed an examination by their state board, as well as one in certain subjects by the State Medical Board.

When non-professional men, such as plumbers, barbers and all grades of mechanics, must serve as apprentices, for three years, before being admitted as journeymen, surely those who pretend to examine the delicate organ of vision should have a correspondingly thorough training. In this state it is unlawful to engage in the business of horseshoeing without a license, which can only be obtained from a properly and carefully appointed state board of five examiners. Applicants for examination must first have served a three years' apprenticeship or worked for four years at the business of horseshoeing exclusively, and must have attended a course of lectures devoted to the anatomy of horses' feet, for one school year in some institution of learning. The examination deals with anatomy, physiology and workmanship. The penalty for violation of this act consists in a fine of not less than twenty-five dollars nor more than two hundred dollars for each and every offense. On the other hand many men with indifferent preliminary educations become professors of optics, ophthalmology, etc., within two or three weeks and prescribe, with a guarantee, for the relief of the most important sensory organ, the eye, which is so closely connected with the brain and which so frequently gives evidence of pathological conditions in adjacent and remote organs of the complex body of man. No doubt the fitting of shoes to any horse's

feet is infinitely more important than the prescribing of lenses for the weak eyes of some poor school child or hardworking seamstress.

The standard of preliminary education in medicine is becoming higher and higher, until a college degree is now required for entrance to several of the leading medical schools. The medical student must then pursue a course of study for four years, supplemented by hospital and clinical experience. He next receives his special training at ophthalmic hospitals or dispensaries at home or abroad, not only by the individual teaching of great masters but by actual practice under their direction. Lastly, he is compelled to pass a satisfactory examination before a state board in the state where he intends to locate.

It has been advocated by some opticians who desire optometry laws passed, that the physician prescribing lenses be compelled to take the same examination as the optician. This might oblige him to understand the business of the dispensing optician. If he must know how to grind lenses, he should also know how to extract from the native herbs the drugs which he uses, and how to temper and make the instruments with which he operates. In short, a physician and surgeon could be a pharmacist, manufacturing chemist and surgical instrument maker with as much propriety as he could be a manufacturing optician. He should study the art of tempering a fine knife blade as assiduously as he should study some of the problems which confront a manufacturing optician.

Concerted action should be taken to enlighten people as to the distinction between an oculist or eye doctor and an optometrist. It is really surprising how few intelligent people know the difference. Yet, is it so much a matter of wonder when the use of the title "Doctor" is so common and is encouraged by so many opticians by having assistants call them "Doctor?" They constantly advertise as "Doctor of Optics," "Doctor of Refraction," "Doctor of Ophthalmology," or "Professor of Optics, Ophthalmology," etc., and as "eye specialist," "eye sight specialist," "oculist optician," "graduate optician," "scientific optician," "expert exclusive optician," or in other high sounding, misleading terms. The public should know something of their schools which confer degrees, "Doctor of Optics," "Doctor of Ophthalmology," "Bachelor of Ophthalmology," etc. They should know that out of a list of a dozen leading schools, not over three mention anything in regard to preliminary education.

The student(?) can go to a school, as the Rowley Ophthalmological College, St. Louis,

Mo., which in a two weeks' course teaches the following, to quote their own words: "The anatomy and physiology of the eye, its relation to the vital organs of the body, the laws of light and refraction, philosophy of wearing spectacles, and the effect of proper fitting spectacles on all classes of diseases, and how to advise the patients as to the care for their persons, regulate their habits and diet, and comply with nature's laws." Permit me to state another example: In Chicago there is a school called the "Northern Illinois School of Ophthalmology and Otology," popular among opticians, which, upon registration and payment of \$25, in either correspondence or attendance course, gives a certificate, which it is stated, "makes a very creditable appearance and frames 20x20 inches." On this in showy type is the title "Fellow of Optics," their corporate seal, etc. After attending four weeks, or taking a correspondence course of six weeks and passing a satisfactory examination, the degree of "Doctor of Optics" is conferred, and there is given a "diploma beautifully engraved, which frames 28x28 inches." But our degrees have only started. Attendance of two more weeks or six weeks additional reading, another examination, then comes the degree "Bachelor of Ophthalmology" and another diploma that "frames handsomely, 28x28 inches." Another stay of two weeks at the "college" or six weeks reading, another examination, and another degree awaits the student, "Master of Ophthalmology," and a diploma which also "frames handsomely, 28x28 inches." There is, they state, a "still more advanced course," the time required not mentioned, but the candidate for the degree "Doctor of Ophthalmology," must have completed all courses, passed "a most rigid examination," then he may receive this degree and a "diploma which frames handsomely, 28x28 inches." There is also an honorary degree conferred upon such as can satisfy the faculty of their proficiency, "after graduating and practicing the profession" two years. There is also a certificate of membership in the alumni association. All the above can be secured for \$25.00. Fac similes of each of these "handsome" diplomas occupy a full page in their announcement.

The points which the opticians emphasize most in attacking the oculist, are the use of cycloplegics, lack of training and fees charged. They endeavor to point out the harm that may be done by the first. A pamphlet, purporting to educate people along optical lines, published by the Frederick Boger Publishing Company, of New York, the publishers of the Optical Journal, and sold by the thousand at a very low price to opticians for free distribution, refers to the use of drops by what they term "unscrupulous professional men" whom they attack in severe terms. By some, even in advertisements, the use of cycloplegics is strongly condemned.

Opticians fail to see the inconsistency of their deriding the no doubt deplorable fact, that some so-called specialists have had only a few months

special training. They who graduate with such distinguished honor (?) in a few weeks' correspondence course from some "diploma mill," forget that the physician had previous knowledge of anatomy, physiology and pathology, not only of the eye, but of the whole body. The high standards in every branch of ophthalmology have been established by medical practitioners. They alone have raised these standards. Compare the pretensions of some non-professional men with the modesty of the best trained specialists after years of experience. Who among the latter pretends to give the cause of many of the conditions he meets in his practice? He must often feel his inability to cure, his comparative helplessness when face to face with suppuration after extraction, his powerlessness in some cases to prevent sympathetic inflammation, and to explain why when one eye is recovering from, e. g., iritis due to a constitutional taint, the patient being full of the curative medicine, the other eye also becomes inflamed. The physician with a good preliminary education, having spent four years in a medical college is certainly much better prepared to take up the study of any new art or science than any one who has not had the advantages of a college education.

As to fees, most opticians advertise their services free. The "no charge for examination" inducement and the guarantee of satisfactory lenses attracts many customers. The statement has been made by opticians that prices would be very high if they were not permitted to practice. The price of good work would not be any higher, as the members of the medical profession are not mercenary. They are usually poor money makers and save little. The ranks of the general profession are overcrowded and its members poorly paid. More men would now become specialists were it not that they would have to enter in competition with non-professional men.

Opticians have often abused their privileges and attacked us, at the same time making every effort to attract public notice by misleading advertisements. Many of these men in advertising refer to organic troubles, functional disturbances and squint, and lead the public to believe that they have a sufficient knowledge of disease to be able to diagnose the condition present in each individual case. They are even now imitating us in the use of drops by prescribing "Murine," etc. Some publish long manufactured testimonials, stating how many leading oculists their victims had seen, and attack the former severely. Shall we permit our work to be usurped by men, whose chief stock in trade consists in the ability to write

glaring advertisements, in which their wonderful skill and ability is set forth in glowing terms? A glance at any newspaper is evidence of the subtle methods adopted by a large class of these men to keep up their trade. Opticians are and always have been aggressive, not being restricted by professional ideals, or codes of ethics. They have well organized state societies in forty states, besides their national, interstate and local societies. In twelve states opticians have succeeded in having bills passed by the legislators, licensing the practice of optometry and are trying to have such laws passed in many others.

There has been much said and written about optical laws. The suggestions made have not solved any of the problems as yet. The medical profession does not wish to interfere with the better class of opticians who mean to be honest and to do the best work they can. However, it is a duty that devolves upon us that our vocation be placed on a higher and not on a lower plane.

Oculists are probably financially better off today than if the opticians were driven out of business, because in such case their places would be taken by well trained ophthalmologists. These men would not only be skilled in their own specialty, but trained as physician, surgeon, neurologist, dietitian, dermatologist and syphilologist, widely read and with a good knowledge of all branches of medicine. This man would not pose as a critic of the medical profession and assume that he could cure everything by his glasses, that drugs and other methods of treatment are useless and harmful, but would be proud to claim the relationship of an assistant and consultant to the general practitioner.

As I stated in closing the discussion of my paper at the Indianapolis meeting of the Mississippi Valley Medical Association, there is great need that "some of our medical schools make such provision that their students may elect a course in optics. In this way the student could graduate, having not only a good training in medicine and surgery, but also, if he so desired, a thorough knowledge of optics and all branches of ophthalmology—a well trained, broad gauge ophthalmologist. Of course, it is desirable that such a student either should hold an internship in a general hospital or practice general medicine for some time before he is properly equipped to take up special practice. Post-graduate training in special hospitals will then be particularly beneficial.

The opticians in accordance with the demands of the optical journals, have succeeded in having laws passed in several states. In many states no opposition was made to the passage of such laws. Some of the optical journals gave advice as to the best method of getting through such legislation, by not attracting the attention of the medical profession and by introducing their bill during the hurried last part of the session. This coming winter an attempt will be made to have an optical law passed in this state. At the last meeting of the Ohio State Optical Association held at this place, June 19-20, a special legislative committee to work for an optometry law in the state was appointed. It was also decided to assess each member \$10.00 to be paid in quarterly installments, for the legislative campaign.

Formerly I looked upon optical laws as only a means by which men not properly qualified to practice, would be permitted to do so, by the license of the state. However, I now feel that until proper provision is made by leading universities for the teaching of ophthalmology and in spite of many objections, some of which have been mentioned, a good optical law might give excellent results. The best class of opticians, who chiefly desire the passage of such a law, have also great difficulties to contend with. The traveling and often dishonest type of optician by his false claims and advertising harms chiefly other opticians. The state is reluctant, and naturally should be, to take away the means of livelihood from any one as shown by the permission given to medical men, dentists and others who have practiced ten years, to continue practice without examination.

I think a committee composed of members of this section co-operating with the national committee and one representing the opticians could formulate a law by which the present conditions could be improved. In this way a much better law would probably be passed than if the opticians themselves were to succeed in having one passed. This committee should investigate the need of any optical legislation and assist in the passage of such as would seem just, but oppose any which they might think unwise. Their judgment should not be biased by the man who would oppose optical laws, good or bad, nor by some of the leading city specialists whose best interests are sometimes subserved by supporting the opticians, right or wrong. We must either co-operate with the opticians, permit, or defeat the passage of their proposed law.

PRESIDENT'S ADDRESS.

LUPUS ERYTHEMATOSUS: ITS DIFFERENTIATION FROM ECZEMA AND OTHER CHEMICALLY ALLIED AFFECTIONS. (DEMONSTRATED WITH FIFTY LANTERN SLIDES.)

M. L. HEIDINGSFELD,
Cincinnati.

Dermatologist to the Cincinnati Hospital.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

I first wish to express my sincere thanks for having conferred upon me the honor of first chairman of your organization, which has now become a well recognized, successful and important section of the great Ohio State Medical Association. I wish to sincerely thank those members whose cordial support by their presence and able contributions not only effected the success of the first meeting in spite of great obstacles and disheartening discouragement, but insured it, I trust, for all future time for the wholesome interest, good fellowship, mutual enjoyment and manifest profit to be derived. To those members who were present at the first meeting and are here again today I wish to express additional thanks, and I trust that they include the entire number of charter members, whose watchful vigil will in no small measure conserve the life, promote the growth and insure the success of the section. I wish to extend my sincere thanks to our able, genial and efficient Secretary, E. O. Smith, for his cordial support from the earliest inception of this society and for his painstaking and untiring efforts for its welfare and success, for which he is personally responsible in no small measure. Finally, I wish to thank those members from this and other sections who are present for the first time, and I hope that they carry away for themselves as much good as their presence brings to the section.

In closing, I wish to add that some of the early objects of the society in the space of one brief year have already been attained. Notably, to become an affiliated body of the Ohio State Medical Association. Secondly, one of the fundamental objects was to meet a demand on the part of the profession for an organization for self improvement along a line of work of general practical interest in which the early medical training in past years has been somewhat neglected. The papers to be presented were intended to possess general interest and broad scope, in contradis-

inction to the somewhat narrow and technical papers which are usually presented at larger national and special society meetings, and I am sure that a mere glance at today's program will readily convince the most skeptical that this has been attained. The subjects are not only broad, but they practically embrace three separate but rather closely allied specialties—skin, urinary and rectal diseases; and it is well that this should so continue, at least until the membership and interest outgrows itself. Papers which are presented, therefore, should appeal to at least three specialties, better to the entire profession. It will be of some interest to note that dermatology and its allied specialties are engrossing more and more the attention of the profession, and that there are numbers of individuals at the present time who



FIG. 1. Case of acute disseminated Lupus Erythematosus distributed in butterfly form over the face in a woman of forty, accompanied with intense burning itching, some malaise and general distress. The patches are chiefly erythematous in character, purplish red in hue and were also distributed over the extremities and upper portion of the trunk.

are devoting special attention to these branches in cities of less than 5000 to 15,000 inhabitants—Athens, Columbiana, Chillicothe, Barberton, etc. At the recent meeting of the American Medical Association at Atlantic City over 8 per cent. of the members registered in the dermatologic section were from Ohio, which augurs much for the

future interest of the profession of this state for the specialty. In closing, therefore, let me propose, "Viviat, gloriat, crescat" the Dermatologic Section of the Ohio State Medical Association.

It is my intention, rather than read a perhaps tedious, tiresome and uninteresting paper upon a subject which I trust will readily appeal to your general interest, to present for your kind and generous consideration some lantern slides, believing that they will set forth the subject in a clearer, more comprehensive and practical manner than words can well express. I believe that in my personal experience there is no dermatologic affection which is more erroneously diagnosed and less frequently recognized than lupus erythematosus, both in the experience of the specialist as well as that of the general practitioner. This is due in large measure to ignorance or indifference to some

quency of less than $\frac{1}{2}$ per cent. of dermatologic cases; others a relatively common affection, with 5 per cent. or more of frequency. There is no dermatologic affection, possibly excepting syphilis, in which a mistaken diagnosis brings to the practitioner greater embarrassment or greater discredit to his reputation. Most of the mistaken cases are considered in their early stages as a "trifling rash" or "a little eczema," that will soon clear up without special attention or with the use of a little zinc ointment.

The stubborn and persistent affection then becomes the nemesis of the innocently erring physician, which pursues his professional reputation the remaining days of the patient's life. There is one phase of the disease which is unquestionably difficult of recognition—i. e., the early stages of the acute disseminated types. This form, during the early stages, does not show the finer characteristics which readily permit the prompt and unmistakable recognition of the chronic form, and to which I will presently call your attention. It bears a close and deceptive resemblance to the acute forms of eczema and dermatitis from obscure external and internal agencies. It is characterized by irregular diffuse patches of erythema, which soon become faintly scaly, with rather rapidly enlarging borders, which are bilaterally, but somewhat asymmetrically distributed over both sides of the body, principally the face, arms and a large portion of the trunk. This form is accompanied with an abnormal degree of itching, distress, febrile disturbance and general malaise, quite out of proportion to that noted in acute eczema and simple forms of erythema and dermatitis. (These symptoms are also marked in the early stages of the circumscribed and more chronic types.) A vast majority of the cases occur in women, and women near the menopause. These cases run a usually severe and persistent course, are extremely difficult to favorably influence with treatment, but fortunately their course is more or less self limited, and the ultimate prognosis is far better than the clinically less severe chronic types. Their recognition is therefore important, and a guarded prognosis in all suspicious cases is justified at all times. When the cases are of longer standing and become more chronic, the diagnosis can be easily confirmed by the removal of some central scales, which will reveal a number of thorn-like plugs on their under surface, which correspond to the distended openings of the dilated follicular orifices, filled with greasy, yellowish, grayish or blackish comedone-like bodies or their contents, so changed that they impart a very peculiar characteristic, faintly granular appearance



FIG. 2. Case of chronic Lupus Erythematosus with a typical bat-wing distribution over the nose and cheeks with outlying patches over the forehead and ears. Patches show characteristic central atrophy and cicatricial contraction, an abundance of loosely attached scales with characteristic plugs on their undersurface and studded with comedone-like bodies.

minor details of the affection, attention to which ordinarily permits its facile and positive recognition. This accounts also for the marked disparity in the reports of its frequency, some authors regarding it a relatively rare affection, with a fre-

to the affected surface. With this brief introduction I will proceed with the presentation of the lantern slides.

FIG. 1.

The first slide for your kind consideration shows, an acute disseminated case of lupus erythematosus in a woman of forty, the sex and age most predisposed to this special type. The lesions are diffusely red, sharply defined, with non-differentiated borders and centers. They are roundish in

severely disturbs the patient's rest and sleep and impairs the general condition. These cases are almost invariably erroneously diagnosed acute eczema, and their successful management in the early stages is exceedingly difficult.

The next series of slides (Fig. 2) show a number of the characteristic textbook-like circumscribed forms, with the so called butterfly or batwing distribution over the face. The early recognition of these forms is not always an easy mat-



FIG. 3. Case of Erythrodermie Pityriasique en plaques disseminee in a young man of twenty, of fifteen years duration. Patches are diffusely purplish red in color, rough and scaly in appearance, accompanied by intense and persistent itching thickening and infiltration of the skin and disappeared with more or less pigmentation. Cases are usually caused by some internal form of intoxication, gastro-intestinal or bronchial in character.

outline and vary considerably in size. In this particular case the butterfly distribution is well preserved over the face, but the trunk and extremities are also freely covered with lesions. In many cases the distribution is limited chiefly to the upper portion of the trunk, neck and the upper extremities. The lesions spread rapidly, and an intolerable sense of itching and burning

ter, for the lesions begin with a circumscribed diffused redness, same as the acute disseminated types, and often only on one cheek, nose, forehead or chin. Later, when the centers fade and become cicatricially depressed and the patches become studded with plugs and covered with scales which reveal on their under surface on removal the characteristic thorn-like plugs and

the gaping orifices from which they have been withdrawn, the recognition of the affection becomes a very simple matter.

The following slide, which shows three circumscribed patches of lupus erythematosus at the angles of the mouth, illustrates that the disease does not always possess a text-book distribution, and is of further interest in that it followed upon the heels of a herpes labialis. The remaining slides show some circumscribed forms with non-fading centers, which are usually very persistent and intractable types, two bat-wing types in negroes, a condition thus far rarely reported in the literature, and some cases of associated involvement of the scalp and mucous membranes of the mouth, two pronounced areas of

chiefly those of the fingers and elbows. The irregularly small and poorly defined lesions are grouped into indistinct patches, possessing a faintly granular appearance, and show minute plugs on careful inspection. They are the most persistent and most intractable to successful treatment of all the various forms of lupus erythematosus, although they bear the clinical appearance of being the most trite and insignificant.

The next series represent a class of cases which are differentiated from the acute disseminated forms of lupus erythematosus with great difficulty—the diffused erythematous forms of toxic dermatitis. There is one form which bears a particularly deceptive resemblance, because it occurs chiefly in women, and women near the meno-



FIG. 4. Lichen Ruber Planus, extensively distributed over the genital and inguinal regions forming diffused purplish red patches simulating some of the chronic forms of Lupus Erythematosus. The isolated, discrete, polygonal, glistening, umbilicated character of the outlying individual lesions and the reticulated character of the patches which are made up of individual papules closely crowded together effects an easy differentiation.

predilection. Also some very severe forms of circumscribed lupus erythematosus, characterized chiefly by a heavy infiltrated erythematous and edematous border, covered with an abundance of soft, greasy greenish scales and studded with numerous large comedone-like bodies. The central cicatricial atrophy which accompanies these forms is much more pronounced, more firm, whiter and more uneven than in the milder forms. In the latter class it is often so mild as to be scarcely perceptible. The last clinical type of lupus erythematosus that I wish to present to your kind consideration is a chronic form that involves chiefly the joints of the extremities, prin-

pause, and is distributed over the face and neck, and that is the toxic dermatitis that frequently results from the use of proprietary hair dyestuffs and tonics. I am creditably informed that some of these preparations contain such irritants as wood alcohol and dyestuffs possessing marked irritating properties. Many furs worn around the neck are dyed in such a manner as to exert a marked local irritation on predisposed individuals, which in its clinical aspects can scarcely be differentiated from acute lupus erythematosus. The deception is increased by the reflex erythema and swelling of the skin over the forehead and around the eyes, which accompanies these as well as all

forms of severe general acute eczema and dermatitis. The burning, itching and general distress is equally severe, but the manner in which they respond to treatment, the absence of elevation of temperature and the history of some form of local irritation will usually effect a ready differentiation. The various irritants which produce the so called trade eczemas and artificial dermatitis (turpentine, tar, acids, chemicals, etc.) are capable of producing similar results, and occasionally there are cases of such obscure etiology—so called toxic erythemas—in which a differentiation is at times scarcely possible.

Another class of dermatologic affection which requires differentiation from some of the forms of lupus erythematosus is the so called pityriasis lichenoides chronica of Juliusberg, or the erythrodermie pityriasique en plaques et disseminee of Brocq (Fig. 3). This class, which has been variously described under various synonyms, is characterized by scaly erythematous patches, irregularly distributed, for the most part over the trunk and extremities. The patches are irregular in outline, and their borders are ill defined. Itching is a very pronounced symptom and often antedates the eruption. Flexor surfaces and areas subject to constant irritation and pressure—e. g., the waist line, are strongly predisposed. The patches, when once well formed, are persistent in character and rather intractable to treatment, and the affected area becomes thickened and inflammatorily infiltrated; the folds and furrows of the skin become intensified; small, flat papules, with an irregular distribution, make their appearance, and the color takes on a purplish hue. The chronic purplish red infiltrated patches bear the most deceptive resemblance to lupus erythematosus, but the differentiation is not difficult if the finer characteristics of each affection are carefully noted. The chronic patches of pityriasis lichenoides disappear with considerable pigmentation and discoloration of the skin. Occasionally the circumscribed cases of pityriasis lichenoides are limited to a single patch, the flexor surface of a knee or elbow, which makes the differentiation more than ordinarily difficult. The marked lichenification or accentuation of the folds and furrows of the skin over the affected area and the history that the affection began with itching effects a ready differentiation. Most of the cases of disseminated pityriasis lichenoides are usually accompanied with some chronic ailment (bronchitis, obstinate constipation, etc.), capable of inducing an intoxication of etiologic importance.

The clinical differentiation of lupus erythematosus is not complete without further reference to

at least one other dermatologic affection, lichen ruber planus (Fig. 5). This affection bears deceptive resemblance when the individual lesions coalesce to form large purplish patches, faintly scaly and granular in appearance. The sharp polygonal outline, waxy glimmer and umbilicated surface of free lying individual lesions usually effects a comparative easy differentiation, while the patches in lichen planus are irregular in outline, sharply defined, and, their surface being formed by coalescence of numberless individual lesions, is finely reticulated in appearance. The lesions of lichen planus fade usually with a characteristic sepia brown discoloration.

There are a number of other dermatologic affections which bear some clinical resemblance to some of the various forms of lupus erythematosus, but their presentation is precluded by the limits of this purely clinical demonstration. What has been presented in this purely clinical demonstration relates not to detailed distinctions and finer characteristics that accrue from careful and prolonged clinical observation and study of a single group or special type of affection, a painstaking research into the literature or a study in histopathology and pathogenesis, but the gross visual characteristics and differences, which, though they possess in themselves little scientific interest, are of great practical value and interest in point of careful and proper recognition of dermatologic affections.

DISCUSSION.

E. D. Tucker, M. D., Toledo: I have greatly enjoyed the paper. It is true the lesions of lupus erythematosus are very, very interesting, and very complicated. I have seen a few cases which I have probably diagnosed as some other skin eruption. I am sorry the Doctor did not get into his treatment in regard to it, but I presume his treatment has been the ray. I have now under observation a case that has been rayed and which is clear in the center and has spread at the borders. This case is beginning to involve one of the eyes. There is some scarring, not so very much, but I cannot say anything further in regard to that case because the patient refused to be rayed again. She was rayed some time, and said she would rather die with the disease than subject herself to the ray and the annoyances,—which she probably will when she finds her eye becoming involved.

Kenyon Dunham, M. D., Cincinnati: I should like to hear the Doctor's differentiation between lupus erythematosus and lupus vulgaris.

M. Metzenbaum, M. D., Cleveland: I should like to hear more on the therapeutic side and the treatment.

M. L. Heidingsfeld, M. D., Cincinnati: The treatment of lupus erythematosus has been a very unsatisfactory page, I think, in dermatology. It seems everything in the world has already been suggested for the treatment of this condition, and

like all things in which we have not a specific, everything is recommended and everything has been found wanting. Everything has been favorably recommended at one time or another, and year in and year out we hear of remedies that are exploited as specific until we find out the treatment is not what it seems to be.

The X-ray I have used with and without success—mostly without success. Some cases do respond. It does not have a uniform effect in all dermatological cases. Some it clears up promptly, quickly, and efficiently; others no apparent effect; while in others again it may produce reaction or an unfavorable effect. That experience I think is credited to the X-ray from my personal knowledge and from what I have read and heard from others. The borders are always the most intractable parts to attack in lupus erythematosus. The central part is more easily influenced, and in fact will almost invariably improve of its own accord with or without attention, but as long as the X-ray has no effect upon the border you can not say the treatment is successful. My success has been in three different directions. The X-ray, as already mentioned. For a while I was using resorcin and gelanthum which you can prepare, as follows:

R Gum tragacanth	2 parts
Glycerine	3 parts
Water	100 parts
Add resorcin as much as the	
solution will hold.....	
	40%

Heat the mass and the resorcin dissolves and there is a clear, viscid fluid that can be applied very nicely with a camel's hair brush once a week, or better once in two weeks. The best results attained with resorcin have been with this preparation.

Lately I have been using with rather marked effect the ultra violet rays, not the rays obtained from cheap Finsen lamps and incandescent globes—but ultra violet rays from mercury quart lamps. I have been using them for five or six months, and have not a single case under observation at the present time that has not improved under this treatment. You get a very nice reaction and the improvement is very marked.

The differentiation between lupus erythematosus and lupus vulgaris is comparatively easy and will be best illustrated by the use of this model: Here is a case which might bear resemblance to lupus erythematosus, but examining the cases carefully you find the nodules are deeply imbedded in the skin, red points which suppurate more or less, and when you exert pressure over the surface with a glass slide the erythematosus area does not entirely fade; therefore it is not erythema because the nodules do not fade under pressure and the points spring out very prominently and become redder by contrast. A more absolute differentiation is made by giving the patient an injection of tuberculin: Lupus vulgaris will react and show some elevation of temperature, while erythematosus, being non-tubercular, will give no reaction whatever. I believe that covers everything that was mentioned.

THE FALLACY OF OSTEOPATHY.

DANA O. WEEKS, M. D.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

After research and deliberation that has embodied much time and devotion in which I have consulted personally, and corresponded with many of the leading physicians, surgeons, critics, and authors of this country, I have gleaned from eminent men from eighteen or twenty states their honest, candid opinion on the subject of "The Fallacy of Osteopathy," and feel justified in writing on the subject. You know that medical writers have paid their respects voluminously, and without fear and intimidation to the various "pathies" that have been inspired or sprung up in defiance of, or in contra-distinction to, the original school of medicine and surgery.

Let us take a brief retrospective. Anton Mesmer, the celebrated Mystic of the eighteenth century, claimed to possess in himself an occult force derived from the stars which he exerted upon his patients by striking their bodies with magnets. Gassner was a wonderful doctor, a kind of wild medicine man of Switzerland in the eighteenth century. He effected his cures alone, and exclusively by manipulation. He was the original Osteopath, and it is said were he living could recover from Dr. A. T. Still for infringing upon his patent or pirating his trademark. Dr. Gassner influenced Dr. Messmer to discard his theory of siderial magnetism, and in Paris practiced upon his patients with manipulation aided by dimly-lighted rooms, and soft, entrancing music. It is a historical fact that he greatly benefited many hysterical women and nervous men. Upon investigation by a committee of physicians, members of the Academy of Science appointed for the purpose of investigating Mesmer, his whole system of manipulation was exposed and shown to be a downright system of charlatanry, and jugglery, and Mesmer himself to be an empiric and impostor, and he was accordingly driven from France.

From the time of the Hierophant of the Egyptian Temples down to the present time, various sects of pretended curers of human disease have appeared under as many various names, all claiming to have the power of healing through some mysterious agency of their own. They operate outside of the jurisdiction of science, and in a large measure rest their claims for success upon the credulity and imagination of their deluded victims. It is interesting to note the di-

versity of these various schools for healing human disease without the aid of medicine and surgery, and outside of the pale of science, that at different times have appeared and disappeared. They are mind-curers, faith-curers, prayer-curers, manipulators, mental science or metaphysical healing, Christian Science, with its absent treatment and hypnotists, enchanters, diviners, alchemists, mystics, astrologers, magicians, soothsayers, telepaths, and divine-healers, all claiming to possess miraculous gifts in the way of curing disease—the secrets of occult science—a kind of mystical knowledge—

“Deep truths to others unrevealed,
Mysteries from Mankind concealed.”

Cagliostro was another wonder-doctor of the eighteenth century, an arch transcendental medical necromancer, who met with great success as a healer and established in Paris what he pleased to call the “Triumphant School of Wisdom.” He claimed to commune with the denizens of the celestial sphere, and to be able to evoke phantoms from the vast deep. He finally died in prison under an edict of the pope.

For a hundred years the art of magic, which Byron terms “that accursed witchery of illiterate terms,” and allied methods have been practiced by pretenders as a mode of healing the sick. Fittingly have the medical authors and critics dilated upon all these systems but one, singularly they have left markedly alone, Osteopathy or manipulation; this is possibly because the latter has been a branch, or an asset, of our own.

I have been impressed by Nassauer in his recent timely address on “Physicians and Publicity,” recently delivered at Munich, and who discussed the amazing revolution that had taken place in the medical profession in Germany. Nassauer said, “The coming forth into the light of publicity has proved of far-reaching importance and benefit. It was necessary at the time, and is now more than ever necessary. Physicians now stand in the full light of publicity. Their professional life, their social relations, and economic conditions are now in the glare of publicity, as well as the scientific life of medicine. If in this glare of publicity physicians worthily represent their profession, show its strength and the power of its knowledge and achievements, and show no diffidence or cowardice in attacking those who assail science or the medical profession, then they will take the rank in the modern world to which as a profession, and as individuals they are entitled.”

“The medical profession must hold its scientific and ethical standards high before the world to justify its claims for a supremacy.” “The pro-

fession will rise higher and higher in public estimation when the world sees that we are not merely preventers and curers of disease, but take an active part in the affairs of the state, and community.”

One interesting case brought to my attention added materially in deciding on this subject. Any humanitarians would have been prompted by the same impulse. A young father and mother, with an indignant grandmother, brought a little innocent child, eight months of age, to me for treatment, with the following explanation: * * * They had recently moved to the city and on inquiry for a physician were advised that the Osteopath was their choice, and the very best in the city. The mother of the child had never had a supply of milk for the child, and they had depended on various artificial foods, until the child was suffering from general marasmus, and chronic indigestion, and as a result, was delicate and fretful. The parents stated that they had consulted the Osteopathic physician, and he gave the child twelve treatments, consisting of manipulation over the abdominal area; about the fourth treatment the child could scarcely tolerate the manipulation over its sensitive abdomen, and protested by screams and crying, evidently with pain and discomfort. In fact, the torture at the twelfth treatment was so severe that the parents absolutely quit. The Osteopath had prescribed, in conjunction to his manipulation, condensed milk. It seemed to me almost incredible, and to verify the condition, I placed the child on my operating table, exposed the area over the abdomen, and was in the act of placing my hands gently over its stomach, when it promptly reminded me of its troubles. The child was given a humane treatment, the best artificial food, and some slight medication, and in a reasonable time was restored to health.

WHAT DO WE MEAN BY THE FALLACY OF OSTEOPATHY?

Hunter and Morris say that “Fallacy is an unsound argument,” “a mode of arguing while appearing to be decisive of a question, is in reality not so, an argument or proposition apparently sound but really fallacious, a fallacious statement or proposition in which error is not apparent, and which is therefore likely to deceive or mislead, sophistry, deceitfulness.” Gould says, “that Osteopathy is a disease of bone.”

One so-called doctor of Osteopathy says, “Osteopathy is a collection of symptoms more or less constant, not present in the normal.” Another says, “It is a progressive science and is simply the response to the demands of mankind for a thera-

peutic science eminently superior in points of rationality of method, freedom from injury to patient, and successful results as compared with all other methods in use."

Another says, "It is veritably a common sense method of treating diseased conditions of the body, either structural or functional, without knife or drugs, by means of strictly scientific manipulations. It makes no demands upon the vitality of the patient, but enlists the curative powers contained within the body, which readily respond when properly appealed to. Its method is purely mechanical. The art of applying its method is dependent upon a thorough knowledge of anatomy and physiology, and a proper application of the principles involved therein, as well as a knowledge of the organic powers of the body and the nerve centers through which they may be excited to action and regulation. The osteopath, being a "student of force," deals with the body as a wonderfully constructed machine, composed of various organs and tissues, each performing some specific function in the promotion of vital economy, under the supervision of vital forces, and when perfectly adjusted will continue to operate its full appointed time, unless interfered with by accident or abuse. They say, "Osteopathic therapeutics depend upon the mechanical principles of adjustment of structure." It contemplates that the bodily functions are maintained by harmonious, unrestricted action of all parts. The *Journal of Osteopathy*, in just this month's issue, says: "Osteopathy is in no way affiliated with pharmacy and medicine, except as the effects of these may be known to be avoided. Osteopathy runs a line of cleavage through the entire so-called history of medicine and divides it into the facts of anatomy, physiology and hygiene on the one hand and the facts of pharmacy and chemistry on the other. The original practitioners were anatomical and physiological; the 'chemical' or medical practitioners were irregular. So osteopathy can show from history, reason and nature that the 'doctor of medicine' is still irregular, and that the 'doctor of osteopathy' alone is regular."

"The scholarship of the medical fraternity is challenged to deny this distinction. 'Osteopathy is a science;' 'medicine is not,' and never has been, and all its 'doctors' cannot show that it is." Gentlemen, any lack of education or fallacy about that? Let us delve for a few moments into a book entitled "Osteopathy Complete," by Barber, and we will confine our thoughts to treatment. They are frank enough to admit that they cannot cure Addison's disease, anthrax, hydro-

phobia, tuberculosis, leprosy, smallpox, Asiatic cholera, actinomycosis, foot and mouth disease, trichinosis, hemophilia, tumors and a number of other diseases. They do claim to treat syphilis only in what they call the chronic form, and certain other diseases only greatly benefit. We will not consume the time in taking up the methods of their treatment for each disease they profess to cure, but will quote a few of the claims contained in the book: Typhoid fever "can be cured by manipulation in one-half the time required by any other method." Cerebro-spinal meningitis, "a skilled osteopath, if called in any reasonable time, has never been known to lose a patient." An osteopath, in speaking of the recent epidemic at Castalia, vouchsafed that "no osteopath treated the cases." Inflammation of the brain or its membranes, "We are perfectly satisfied that brain fever, if treated in time by these never-failing methods, is no more to be dreaded than a bad cold." Hiccough, "instant cure." Bright's disease, "Knead and manipulate carefully, but deeply; treat twenty minutes each day until a cure is effected." Diabetes mellitus, does not speak so sanguine of cure, "but by placing hand over kidney and vibrate with hand for two minutes, acts directly upon the nerves and will immediately check excessive flow of urine." Ear cases, "almost always successful." Appendicitis, "first treatment will usually give immediate relief." In lecture twenty-seven, by Hazzard, professor of principles of osteopathy in the American School of Osteopathy, 1898, says: "Diphtheria, of course, is a constitutional trouble." You "will have to prevent the membrane forming, if possible, and that can be done." Dr. Charley Still's treatment was very largely about the neck and throat. "He would treat there to keep the blood supply open * * * and how do you do it?" "Free all the muscles and ligaments, and especially keep the anterior muscles softened and loose, so that there can be no tension there or stoppage of the blood, allowing an excretion to grow in the throat and form a membrane." "When the membrane does form, what do you do?" "Cause the patient to vomit is one way, in order to throw it out; and there are certain drinks that they use to loosen the membrane." How about laryngeal diphtheria? A doctor of osteopathy under oath on the witness stand testified that he treated all diseases by manipulation; that he knows nothing of antitoxin or the treatment of diphtheria with antitoxin; that he treats cerebro-spinal meningitis, acute inflammation, rheumatism, peritonitis and appendicitis, but refused to state how the treatment is applied or

administered. Did you ever know of a reputable physician or surgeon who refused to testify as to his method of application?

Now, we do know, as well as the intelligent laity, from vast experiences, of the marvelous results of the use of antitoxin and other serum therapy, and we do know of the marvelous success of surgical interference with the scalpel, of *materia medica* and therapeutics; we also do know what massage does in selected cases. And osteopathy is and always has been just as Gould describes the term. Article No. 3 of the American School of Osteopathy says: "The object of this corporation is to establish a college of osteopathy, the design of which is to improve our present system of surgery, obstetrics and treatment of disease generally, and place the same on a more rational and scientific basis, and to impart information to the medical profession, to grant and confer such honors and degrees as are usually granted and conferred by reputable medical colleges." What greater source of research and greater opportunity for development can the osteopath unfold to us?

Permit me to give you a few authentic illustrations that demonstrate my subject beyond all peradventure.

No. 1. Dr. T., a highly reputable physician and surgeon, had a patron who received an injury at the wrist joint, consisting of a dislocation and fracture, as the result of a fall. The same was properly adjusted, and, six or eight days later, to verify the diagnosis, a skiagraph was taken, which demonstrated that the diagnosis was correct. The patient was finally discharged, with a good recovery. The patient, however, was rheumatic and suffered with neuritis. She carried the forearm in a sling for an extended time. Naturally, marked stiffness of the elbow and shoulder joint resulted, with exaggerated pain on motion. Subsequently, in visiting a certain city in Ohio, the patient came in contact with a practitioner of osteopathy. He diagnosed her case as a dislocation of both the shoulder and elbow joint and promptly proceeded to adjust the same, without anæsthetic and without any Roentgen ray examination. He was sure that she had no injury of the wrist joint at the time. No skiagraph was taken; there was even no soreness, pain nor swelling, or any other symptoms to indicate any injury to the shoulder or elbow, the patient having perfect use of the same. Is this a fallacy?

No. 2. A young girl of a distant city, apparently innocent and without reproach, gradually began to have an enlargement of her abdomen. An osteopath was consulted and began promptly

his usual manipulations, and the more he manipulated the larger the growth became. He would say at times consolingly, "Now, don't you know that the tumor is becoming smaller?" Finally, the growth had assumed such unusually large proportions that the osteopath in despair gave up and said lamentingly but reassuringly to her father, "Your daughter has a tumor, and when it bursts she will die." When the normal period of uterogestation terminated, the young girl was delivered of a healthy babe. Any fallacy about that?

No. 3. A most estimable young lady, educated and refined, residing several miles in the country, suffered with cancer of the stomach. The family had been "dyed-in-the-wool" osteopaths, so only the osteopath treated her case. Finally, a few of the indignant neighbors, after effort, succeeded in persuading the family to call in a reputable physician to see her. Two highly reputable physicians saw her, diagnosed her case, cancer of the stomach. The patient was then suffering agonizing pain. The physicians frankly stated that all they could do was to relieve the patient's suffering. The proffered aid was refused, and the osteopath continued the case. The patient's cries could be heard in the neighborhood, and she died by inches in greatest torture. Any fallacy? Any need of higher education along these lines? Are these days of higher civilization, or are we among barbarians, who know not common humanity's needs? Yet these osteopaths are regular graduates of the best osteopathic schools in the country, and the laity are a party defendant to such unwarranted and unceremonious methods of treatment. Do you and I permit such mistakes to continually occur in our everyday practice as physicians and surgeons?

No. 4. Dr. C., a highly reputable physician and surgeon, reports a case of a lady, aged thirty-three years, treated by an osteopath for several days. He diagnosed her case as prolapsus uteri. The osteopath represented that he had replaced the uterus three times. His manipulations became so severe that the patient rebelled, and he finally performed his manipulations under restraint, having assistants to hold the patient. The osteopath was finally discharged, and Dr. C. was called. He diagnosed her case as retention and promptly catheterized the patient, and she passed nearly four pints of urine. He also found the position of the uterus normal. The patient made a good recovery. Several days afterward, in settling the account with the osteopath, the osteopath said: "I knew that I would rub the trouble out of the womb into the bladder."

Case 5. Dr. C. also reports a case of fibroid

phthisis, lady, aged fifty years, last stage of disease. The osteopath was called and proceeded to treat the case. With the explanation that "her ribs were too close together and pinched upon nerves," he "would replace ribs by rubbing them apart and relieve the disease."

Case 6. Dr. Y., a reputable physician and surgeon, reports a case of locomotor ataxia. The osteopath had guaranteed a cure. Patient was compelled to quit his treatment. Patient collapsed, confined to bed and in a precarious condition.

A personal friend of mine, a neurasthenic, who has traveled the world over, consulted the best specialists on nervous diseases, no substantial relief, finally consulted the osteopath, and his treatment proved of no value after eighteen months' devoted effort.

Let me quote what the pre-eminent jurist, Justice Field, said in giving the unanimous opinion of the United States Supreme Court:

"Few professions require more careful preparation by one who seeks to enter it than that of medicine. It has to deal with all those subtle and mysterious influences upon which health and life depend and requires not only a knowledge of the property of vegetable and mineral substances, but of the human body in all of its complicated parts, and their relations to each other, as well as their influence upon the mind. The physician must be able to detect readily the presence of disease and prescribe appropriate medicine for its removal. Everyone may have occasion to consult him, but comparatively few can judge by the qualifications of learning and skill which he possesses. Reliance must be placed upon the assurance given by his license that he possesses the requisite qualifications. Due consideration, therefore, for the protection of society may well induce the state to exclude from practice those who have not such a license or who are found upon examination not to be fully qualified. No one has the right to practice medicine without having the necessary qualifications of learning and skill."

Not only has the Supreme Court of the United States expressly upheld such state statutes as the one under consideration for the protection of health, limb and lives of the citizens, but in almost every state in the Union the constitutionality of such legislative acts has been upheld by the state courts of last resort.

The theory of osteopathy, then, is based upon the presumption that there is some anatomical defect in each individual who has symptoms and disease. They claim to be unusually expert in anatomy and are therefore able to recognize these

deformities as the ordinary doctor cannot. Because of the motions through which they put their patients they do have a decided effect upon neurotics, and, like Christian Science and other fake treatments, relieve that class of people. The facts are that the great body of that profession are not well educated even in anatomy. There is evidence enough of this in the experience of physicians with them. Besides, in their schools they do not study anatomy more diligently than in the ordinary schools of medicine, and, in fact, not as fully. In many instances they do not dissect a whole body. The main objection or fallacy to the osteopath is that there is no reason for his existence. Osteopathy of itself will not cure any known disease. If considered as a part of physical therapy, like massage, Swedish movements, Delsarte, etc., it may be useful in selected cases. There is no more reason to dignify the physical movements which they use as a "pathy" than to dignify the masseur and others who use physical treatment by some "pathic" suffix. A vast multitude has said osteopathy should be eliminated, and with it statesmen and politicians who champion its cause.

Several of the most eminent men of our profession, after full and exhaustive investigation, have testified under oath as to the qualifications of the osteopath to practice, and their universal opinion and belief is "that osteopathy is not a system for curing disease; in fact, it is dangerous and hurtful in most diseases, and especially to invalids who should receive such treatment."

It is evident that the simultaneous flood of osteopathic bills is the result of a well planned effort to secure in each state legislation which will give the individual osteopath all the privileges of a member of the medical profession, while expressly stating that he is not practicing medicine. In addition to these bills, they provide for unlimited and practically universal reciprocity, and also permit the board to substitute a variety of other qualifications for the educational requirements, thus allowing the licensing of practically anyone whom the board may wish to license. The bills provide for a separate board of osteopathic examiners and for an examination before licensing, but with so many exemptions as practically to nullify the examining features.

Again, wherein is the fallacy of osteopathy? In the Book of Genesis, second chapter, verses xxi and xxii: "And the Lord God caused a deep sleep to fall upon Adam, and he slept; and He took one of his ribs and closed up the flesh instead thereof." "And the rib which the Lord

God had taken from man made He a woman, and brought her unto the man." This was possible, as all things are possible with the Creator, but the so-called osteopath cannot take a rib from the grand old school of medicine and surgery and create a school therefrom which they proclaim is not only the par-excellence, but even greater than the embodiment of the whole school of medicine and surgery.

In the *Journal of Osteopathy* of December, 1906, under the article "Confessions and Fallacies": "While osteopathy lacks a few years of being as old as scientific medicine, this Richmond has certainly made his presence felt in this country as no other system of therapy has hitherto." The mouthpiece of osteopathy also says: "Let us remember that we are all pioneers in the profession; that our school is the modern one of the day."

Another great fallacy of osteopathy is that its advocates consider that it is separate and distinct from our school of medicine, when it is a component branch of our own. It differs radically and entirely from schools of medicine both in its points of view and in method of treatment.

If we were to admit that they had an equal right to practice, they widely overstep the confines of their pathy and actually assume and prescribe some methods and usages wholly foreign to their bounds and teachings, and they have no moral or legal right to do so.

Let us with voice, pen and deeds demonstrate to the great common laity, to the honest, intelligent, reliable statesman, to the flexible politicians and all, of the pitfalls and snares which they can avoid.

RESPONSIBILITY FOR ANESTHETIST'S FEES.

The question has frequently come up, should the operating surgeon always pay the fee of the anesthetist, or should this be paid by the patient? It is probably true that this should be as agreed on, but if there is no disagreement it seems that the operator is responsible. He usually selects and employs the anesthetist, and very much prefers his own, as he knows his capabilities and feels at ease operating with him, which is a great point. Some operators pay their anesthetists a fee for each case. In some instances the operator gets no fee, and this works a hardship on him. Other operators have the anesthetist collect his fee himself, and some it is claimed collect their fees before the patient is out from under the anesthetic, which is abrupt, to say the least. There

are arguments for and against each way of doing it. The anesthetist is usually unacquainted with the patient or his surroundings. He is brought in by the operator, and his connection begins and ends with the operation. In the Brompton county court, England, this point was brought up recently by the following case. The plaintiff, an anesthetist, claimed 10 guineas from the defendant for 10 administrations of an anesthetic to the latter's patients. His contention was that it was the custom for operators in charge of a case to hold themselves responsible for any fees due an anesthetist. Evidence for and against this view having been given, the judge ruled that the custom existed, and gave judgment for the plaintiff for six pounds, this being an average between the fees variously stated commonly to be paid to anesthetists.—*Medical Herald*.

THE BUSINESS SIDE OF MEDICINE.

"We are professional men in every sense of the word; we have the mental labor of lawyers, the moral standing of ministers, the technical knowledge of organized artisans, and the business qualifications of school children. The average man will give a lawyer \$300 to \$500, together with a lifetime's praise, to keep him out of the penitentiary for from two to ten years, and at the same time he will raise a phosphorescent glow and a kick that can be heard around the world if a doctor charges him \$50 to \$100 to keep him out of hell for a lifetime."

"The average doctor tries to do too much work. Every doctor wants everybody to patronize him. He likes to be going night and day, rain or shine, Sunday or week-day, hot or cold. This is a business mistake. It wears a doctor to a frazzle. It gives him no time for bill collecting and business matters; no time for patients who naturally feel neglected and are slow pay as a consequence. A doctor can do better work, more good, and build up a more enviable reputation if he coolly takes his time and is careful and painstaking in his examinations and if he takes into consideration the pathologic conditions he meets."

"We are the only people under God's ethereal tent today who keep open shop 24 hours each day and 365 days in each year. We are also the only laborers to keep on working for people who do not pay."

"I can carry my part of charity with as good a grace as most men. I can go through rain, snow or mud and do my best, provided the case is one of worthy need, but to reward continually downright rascality, wilful drunkenness and wanton laziness is getting out of my line."—J. E. Dildy, in *Texas State Journal*, via *Cand. Pract.*

The Ohio State Medical Journal

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THE CONSTITUTION OF THE OHIO STATE MEDICAL ASSOCIATION

Especial attention is directed to the revised copy of Constitution and By-Laws of the State Association appearing in this number. As will be remembered, there were several changes made at the Cedar Point meeting. Of these, but one affected the Constitution, as may be noted by referring to Article VIII, Section 3, where the words "nor councilor" have been inserted after the words "no Delegate," with the effect of rendering the Councilors ineligible for election to the offices of President, Vice-President, Secretary or Treasurer.

The By-Laws have been changed in several respects, chiefly in the line of enlarging the work and broadening the scope of the association.

The first change occurs in Chapter I, to which a new section is added, Section 5, directing the enrollment of members under the section to which they desire to officiate.

The next alteration is in the insertion of an entirely new chapter, Chapter III, which

provides for the division of the association into five sections, of which that of Obstetrics and Pediatrics, is entirely a new departure, and which, as elsewhere mentioned, makes its debut at the next annual meeting. Of the several sections of this chapter, one of the most important is Section 4, which provides that the executive committee of each Section shall examine and pass on all papers read before the Section and endorse the ones for publication. This rule will be of great assistance in maintaining the high standard of the JOURNAL, and should stimulate interest and carefulness in the preparation of papers.

In Chapter IX, Section 1, two new standing committees have been created, a Committee on Medical Education to act in conjunction with the National Committee in advancing medical education in our State, and a Central Secretaries' Committee to assist in the better development of the work of the Secretaries of the component societies. This is an important and valuable addition, and will be, we hope, productive of much good to the Association.

The next change is in Section 2, of the same chapter, in which the character of the Committee on Public Policy and Legislation is somewhat altered and its field considerably enlarged.

A careful study of the Constitution and By-Laws is recommended to all members, but especially to the newly-elected officers of the component societies.

It may be just as well to remark at this juncture that there is no provision in the new plan of organization for *Life Members*. From a few counties there have been received reports of such members, to which there is, of course, no objection to be offered, but it must be remembered that the County Society must remit for each Life Member, the one dollar dues annually in order to carry with it membership in the State Association and subscription to the JOURNAL.

ADVERTISING

The question of newspaper notoriety is one that has vexed the medical profession for many years.

Without doubt there are many legitimate occasions when a physician's name may appear in the columns of the daily press, and occasionally also in these days when there is absolutely nothing sacred from the public's demand for news, so-called, one's name may be dragged into print, not only without one's consent, but even against earnest remonstrance. Unfortunately, however, perhaps more frequently in times past, but even at the present time, the readiness of our daily papers to print descriptions of supposedly rare operations and other medical details has been employed as a mode of advertising which is distinctly contrary to the letter and spirit of our code of ethics.

There is no question as to the position of the medical profession on advertising in

the secular press. It is condemned by all ethical physicians as leading directly to quackery and charlatanism; it is the chief asset of quacks and patent medicine fakirs, and the medical profession must stand as a unit against anything which savors of the like and avoid even the appearance of evil. These reading notices in the public press should be considered as distinctly tending in the same direction, and should be as strongly discouraged as the frankly paid for "ad" is now frowned upon.

The greatest difficulty lies in discovering whether such notices are printed with the connivance of the person mentioned, or whether he is the victim of the ubiquitous reporter, or of some well-intentioned but misguided friend. The ethics of our profession are not appreciated by the laity, and with the kindest of motives a friendly editor, reporter or hospital attendant may cause considerable embarrassment to a conscientious and consistently ethical practitioner. Surgeons and hospitals are probably most frequently the subjects of this well-meant but mistakenly kind exploitation, and they may have more difficulty in avoiding it, as reporters are constantly seeking by all sorts of means to obtain from them material for their papers. There are, however, instances which suggest authoritative inspiration, and the frequent repetition of the offense fairly eliminates the probability of coincidence; these are the cases which demand correction.

Drastic methods have been advised from time to time, and it has even been suggested that a way to stop free advertising would be to remove all ethical restrictions and permit all physicians to advertise outright! This is like Oscar Wilde's theory that "the best way to get rid of a temptation is to yield to it," and the cure would be much worse than the disease. We can only see at present that the best plan is to

inculcate a spirit of *noblesse oblige* among the members of our profession, with perhaps a campaign of education among newspaper writers.

Flagrant examples should perhaps be investigated and habitual offenders punished, but with the co-operation and consistent effort of the majority of the members of the profession in refusing to allow of the improper use in this way of their names, this very objectionable practice will be quietly and effectually eliminated from our midst.

THE COLUMBUS MEDICAL JOURNAL

It is with regret that we learn that J. U. Barnhill has relinquished the editorship of The Columbus Medical Journal, with the December issue. During the nine years that he has served as editor of this periodical he has aimed constantly to maintain a high ethical standard; he has published a large number of original papers, largely by local writers; has faithfully reported the transactions of the Columbus Academy of Medicine; has published the papers of the Ohio Association of Medical Teachers, which society he was the prime mover in organizing, and in every way endeavored to uphold and to promote the best interests of the medical profession.

We still further regret to hear that it is rumored that the Journal is not to be continued as an ethical scientific magazine, but that in its stead a so-called medical journal is to be conducted by a local man who is utterly beyond the pale of ethical standards—a man whose public (newspaper) writings are fulsomely pious, and whose private occupation is advertising manager to a notorious patent medicine.

If this plan should be followed we trust that every member of the Association and every ethical physician will promptly meet such effrontery by withdrawing all support to this publication.

Local medical journals have served a good purpose but with the evolution of state medical journals there is less demand for those of private ownership and greater labor connected with their maintenance. Moreover, the company of medical men owning this periodical, no longer having time to conduct the Journal, sought to get other ethical physicians to take charge of it. Not succeeding in this, the Journal was turned over a year ago to a local publishing company, composed of laymen, with the understanding that it was to be continued as an ethical journal; the editorial staff agreed to remain in charge for at least one year, when the company was to secure a successor to Drs. Barnhill and Means, who had announced their intention of retiring at that time. The control of the Journal now being in the hands of the lay company, neither the former editors nor the old company are responsible for the continuance of the publication that is to follow under the hitherto honored name of The Columbus Medical Journal.

Surgery was first heroic, then anatomic, then pathologic, and we are just now in the fourth stage of the history of surgery, that of physiologic surgery. By that I mean we allow the patient to manage the infection himself by means of his opsonins and phagocytes, and our operation (appendicitis) consists simply of turning the tide of battle between these elements and the bacteria. It is the new principle, but it is to become the dominant one.—*Morris*.

It may be stated as a general rule that a company or corporation is under no legal obligation to provide medical attendance for persons injured in its service, and if the physician or surgeon seeks to recover from a company for attendance upon an employe so injured he must show that he was employed to render such services by a servant or officer of the company having authority to employ him. The president or general manager of a corporation making such a request binds the company for the payment for services rendered.—*Thompson*.

EDITORIAL NOTES

MEETING OF THE JOINT COMMITTEE
ON PUBLIC POLICY AND LEGISLATION
OF THE OHIO STATE MEDICAL ASSO-
CIATION, COLUMBUS, OHIO, JANUARY
21, 1908.

The meeting was called to order at 9 a. m. in the A. I. U. Temple, No. 44 W. Broad St., Columbus, Ohio, by the Chairman, J. W. Clemmer.

After hearing the minutes of the preceding meeting, an invitation was received from the House of Delegates to hold a joint meeting, which motion was accepted and the Committee adjourned to meet with the House of Delegates.

J. W. Clemmer, in a few remarks, declared the object of the meeting to be the free discussion of the various bills which have been, or would be introduced, before this meeting of the Legislature, and which are of interest to the medical profession.

He then read a list of bills to be considered at the meeting.

On motion of B. R. McClellan, Xenia, it was ordered that the bills be considered seriatim.

J. W. Clemmer said that before considering these subjects specifically, he wished to present to the meeting Mr. E. B. Kinkead, the legal adviser of the Ohio State Medical Association, who has had these bills under consideration and who could give better direction to the work, as he knew what bills had been introduced and their import.

Mr. Kinkead spoke as follows:

Gentlemen of the Ohio State Medical Association:

I am very glad to meet you, as I have been anxious for my own purpose to know you personally, and to aid me in this I should like to have a complete list of those present, for this reason: I find that members of the Legislature are loathe to introduce bills unless they know something about who started them, therefore, after this meeting I shall be able to supply some needed information. I also desire to communicate to you some information about your representatives in the Legislature; for instance, a certain Senator, a lawyer, to whom I presented the bill against the Publicity of Remedies for Venereal Diseases, looked at it and then looked wise and said to me, "I suppose this is in the interest of the medical profession." That man needs a little educating, and his constituents should know that he is adverse to the medical

profession. I am very glad to feel in talking over the important work in the Legislature, that I may rely upon the honor, integrity and ability of the medical profession; for I think the medical profession is one of honor.

I have found it difficult sometimes to secure a member of the Legislature willing to introduce some of the bills in which we are interested, and therefore, if any of you have a special hold upon some member, I shall take it as a favor if you will personally take the matter in hand and assist wherever you can.

Mr. Kinkead then detailed some of the difficulties which he had met in regard to some of the bills introduced, especially that of the opposition of the State Dairy and Food Commissioner to the Pure Food and Drug Law, and concluded by urging concentration of effort in securing the passage of a few important bills, rather than attempting too much at this session.

The bills were then considered seriatim, as per former motion, and the Chair called upon Mr. Kinkead to read the proposed Pure Food and Drug Law.

After hearing the bill, discussion was called for.

J. W. Clemmer: Said that the Committee regards this as the most important measure to be brought before the Legislature this winter. I would like to supplement what Mr. Kinkead has said regarding this bill, because I consider additional information important.

Notwithstanding this measure is wholly a bill in the interest of the public good, to prevent fraud, evil and debauchery, yet there is an organized effort to prevent its passage on the part of the American proprietary medicine manufacturers. I say an organized effort advisedly, because their attorney, Mr. Douglass, of Chicago, and their President, Dr. Cheney, by courtesy sometimes called "Colonel," proprietor of Hall's Catarrh Cure, are here for that purpose.

I would suggest, inasmuch as this bill fairly represents the National Pure Food and Drug Law, that it be introduced at this meeting.

A Member: This is a bill which calls for vigilance and activity in this entire state. I would suggest, Mr. President, that this is the time for prompt action, and I move, therefore, that this bill be introduced and that the members of this Committee hereby pledge themselves individually and collectively to make efforts to secure its enactment into a law.

Motion seconded and unanimously carried.

The Chair then called for the reading of the next bill.

W. H. Snyder, Toledo: Moved that, in order to facilitate matters, the attorney merely mention the most important points of each bill under consideration.

The motion was carried.

Mr. Kinkead then presented the important points of the "Criminal Abortion" law, and brought out the fact that, as first stated, it proposed that no one should be found guilty for the act, except the doctor. He suggested that that was too sweeping, and advised all other persons aiding or abetting the operation should be liable, the woman only to be permitted to testify without incriminating herself.

He asked for a free discussion.

R. H. Grube, Xenia: Said that in framing the bill, it was merely intended to exempt the woman in order that she might testify and, therefore, he accepted the suggestion offered.

W. W. Brand, Toledo: Said that inasmuch as the woman was equally guilty, he thought that she should not be rendered immune, but that all persons involved should suffer equally.

J. F. Beck, Dayton: Moved the adoption of the amendment. Seconded, and motion carried.

B. R. McClellan, Xenia: Protested against such hasty action as had just occurred inasmuch as there were possible objections to the bill as amended. It seemed quite possible for any woman to make a charge against a doctor, and he would have not recourse if she were not clearly liable.

A member thereupon arose to a point of privilege, stating that there seemed to be some misunderstanding about the bill, and moved to have the vote reconsidered.

The motion prevailed, and Mr. Kinkead was asked to restate the purpose of the bill, which he did, saying that the bill amended according to his suggestion would allow the victim of a criminal abortion to testify against the person inducing it without incriminating herself.

This was simply for the purpose of obtaining evidence, but it might, as some one has said, open the door for blackmail, and, therefore, he thought the subject should be carefully considered from every point of view.

It was then moved and seconded that a committee of five be appointed to confer with the attorney for the purpose of thoroughly considering the proposed bill.

The motion prevailed, and the Chair appointed D. R. Silver, Sidney; B. R. McClellan, Xenia;

R. H. Grube, Xenia; A. J. McNamara, Lorain; D. B. Conklin, Dayton.

The Nurses' Bill was next considered.

Mr. Kinkead said the purpose of this bill was to create a separate board of examination for nurses and to issue them certificates as registered nurses.

The main question of interest to the medical profession, was, whether it favored an independent board of that sort, or whether it preferred to consider it as subordinate to the medical profession, and, therefore, under the supervision of the State Board of Medical Registration and Examination.

S. P. Kramer, Cincinnati: Moved that the State Medical Association is opposed to a separate board of examination.

The motion carried.

According to motion, further discussion of this bill was deferred.

The next bill to be considered was stated by Mr. Kinkead to be in the hands of Representative Braun for introduction. Its purpose being the prevention of the advertising, posting, printing, or sending out in any way remedies for the cure of venereal diseases, and the giving of publicity to such remedies and making violations of these a misdemeanor.

It was moved and seconded that this bill be unanimously endorsed.

In the discussion, Mr. Kinkead was asked whether he had considered the legality of the proposed bill.

The attorney answered that he had so considered all bills brought forward, and while there was one question of constitutionality of one point in the drug bill, he was willing to take the chances.

He was further asked if this bill included the advertising of abortifacient preparations which should be regarded as the most objectionable of all advertisements.

Mr. Kinkead answered that there is a law already which makes it unlawful for a newspaper to advertise such preparations, but this bill proposes a wider range and is made to cover the circulation and passing of printed matter of any sort.

The motion for its endorsement was then carried.

Mr. Kinkead: The next bill to be considered is the bill on "Optometry." A bill for the purpose of regulating the fitting of glasses by opticians.

Sometime since a move was made by the opticians of Ohio to follow the examples of other states in having a law enacted for the regulation of the practice of fitting glasses.

The proposed bill had many objections and several conferences were had with representative oculists for the purpose of eliminating the features objectionable to the medical profession. This measure will surely be introduced before the Legislature, and I trust there will be a free discussion so that we may bring out the sentiment of the committee.

A member moved that, inasmuch as opticians are really practicing a branch of medicine without legal right, the Ohio State Medical Association should not countenance them and that this bill be not indorsed.

Seconded.

R. D. Gibson, Youngstown: Called for an explanation of the bill from the Committee who had conferred with the opticians, and J. E. Brown of Columbus was called upon to respond.

He said that he had been appointed by the Chairman of the Eye, Ear, Nose and Throat Section to confer with the Committee of the Ohio Opticians' Association, for the purpose of endeavoring to eliminate features in the proposed bill, which were as above stated, objectionable to the medical profession. He personally believed that all who prescribed glasses should be graduates of medicine, but the practice of fitting glasses had become established by custom; inasmuch as a bill was sure to be introduced and probably passed, he was in favor of seeking to secure a measure as favorable to the medical profession as possible. He further stated that the result of the conference was the present bill which placed the control in some degree under the State Board of Medical Registration and Examination, which, through a committee, would examine and register practicing opticians.

After considerable discussion, which developed considerable sentiment against the bill, the motion was called for and lost.

It was then moved and seconded that the Committee introduce the bill as presented.

Seconded and carried.

The next subject for consideration was the bill for the establishment of a Deputy County Health Officer, and C. O. Probst of the State Board of Health was called upon to explain the main provisions of the bill.

He said that he expected Senator Hafner of Cincinnati to introduce the bill that very day. That the bill provided that the State Board of Health should hold an examination for the appointment of a Deputy State Health Officer for each county; that Senator Hafner was in favor of extending the term of office from four years to an appointment for life; that the deputy health officer should appoint a health officer in every town and township in the county, subject to the approval of the State Board of Health. His salary should not be less than \$1000.00 per year. The examination for the appointment of this officer should be on sanitary hygiene and subjects relating to the public health and prevention of disease.

The bill further authorizes the County Commissioner to establish a laboratory in each county, or two or three counties might join together in establishing a laboratory for pathological and medical examinations.

Discussion.

Several members objected to such an arrangement to be made for life, while others urged that such an office required a specialist and better service would be obtained from one who devoted his entire time to this subject.

It was moved finally to strike out "lifetime" and favor four years, subject to reappointment.

Carried.

It was asked if the bill specified that the deputy health officer should be a physician.

C. O. Probst replied that it did not, but that the examination specified was of such a character that none but a qualified physician could pass it.

A. J. McNamara, Lorain, moved that candidates for the examination for deputy health officer must be recommended by the county society of the county in which the appointment is to be made.

Carried.

On motion the bill as amended was endorsed, and the meeting adjourned until 1 p. m.

Tuesday, 1 O'clock.

The meeting was called to order at 1 p. m.

E. B. Kinkead stated that the committee appointed to consider the criminal abortion law recommended that the Auxiliary Committee should not commit itself one way or another to the proposed amendment to the abortion law.

D. R. Silver, Sidney, stated that the committee, in addition, presented the following resolution:

Resolved, That it is the sense of this committee that in any case where there is suspicion that a physician is concerned in the practicing of criminal abortion, charges shall be brought by the medical society of his county before the State Board of Medical Registration and Examination, looking to the revocation of his license, and the testimony of the woman concerned, or other persons, shall not be used against her criminally.

On motion, the resolution was adopted.

After a brief discussion, in which Mr. Kinkead stated that he believed such immunity to be constitutional.

The next measure to be considered was House Bill No. 704, introduced by Mr. Elson.

This was stated by Mr. Kinkead to be designed to regulate the practice of non-medical healing in Ohio and for the purpose of enabling Christian Science and other sects to practice medicine.

Geo. H. Matson stated that this bill had been referred to the Committee on Medical Jurisprudence. Six of the seven members are physicians, and they have said that it would be unnecessary for this committee to appear before them.

After brief discussion, it was moved that this bill be absolutely condemned as opposed to the interests of the medical profession.

Carried.

J. W. Clemmer announced that the next measure to be considered was the bill for the re-establishment of health boards for cities as provided in the code law of 1902 and amended in 1904. He said by reason of this amendment there had been abolished about one-third of all the health boards in the state. This had been done purely for political reasons, as shown by such action in Cincinnati, Cleveland, Toledo, Dayton and Newark. Cincinnati especially has found this amendment a great detriment in maintaining the health of the city.

Senator Hafner has introduced the bill looking to a cure of this condition, and it should have the hearty endorsement of this committee.

N. Worth Brown, Toledo, moved that this bill be heartily endorsed without further discussion.

Carried.

Mr. Kinkead said the next bill on the list was a proposed bill to establish a system of medical inspection of the public schools. He had, however, had no time to consider the measure, but presented it for the pleasure of the meeting.

In the discussion it was said that Cincinnati possessed efficient measures of inspection without such a bill, and some general points were brought out, but before further prolonged discussion it was moved that the further consideration of this bill be deferred to some future time. Carried.

J. W. Clemmer introduced for consideration House Bill No. 672, by Mr. Corlett. This, the chairman said, was a bill for the restriction of the publishing of city ordinances in one paper, and he felt it should be endorsed by this committee, as such a law would facilitate the publication of health rules in one paper and which he stated would simplify matters and help free the boards of health of some embarrassment in securing proper publicity of their rules.

It was moved and seconded and carried that this bill be therefore endorsed.

Mr. Kinkead stated that there were other bills not on the list which might be mentioned. For instance, a bill which has been introduced before the Legislature to provide for the creation of a benevolent institution to take care of habitual drunkards or those given to the excessive use of narcotics.

Park L. Myers, Toledo, stated that if there was any way in which the medical profession might help in the establishment of such an institution they should take it up, and therefore moved that this bill be endorsed and its passage assisted as soon as possible.

Motion seconded and carried.

Measures for regulating the certifying of milk were then discussed, and a communication from the Academy of Medicine of Cincinnati was read as follows:

"No person shall sell or exchange or offer for or expose for sale or exchange as or for certified milk which does not conform to the regulations prescribed by and bear certification of a county medical society organized under and chartered by the Ohio State Medical Association, and which has not been pronounced by such authority to be free from antiseptics, added preservatives and pathogenic bacteria, or bacteria in excessive numbers.

"All milk sold as certified milk shall be conspicuously marked with the name of the commission certifying it."

This to be a part of a bill to regulate the certification of milk.

On motion, this bill was ordered endorsed and efforts of the committee pledged to secure its passage.

S. P. Kramer, Cincinnati, spoke in favor of a bill introduced before the Senate prohibiting the use of slop from breweries and distilleries for the feeding of dairy cattle, which, after some discussion, was endorsed by the meeting.

H. B. Gooding, Tiffin, spoke in favor of amending the laws in order that physicians may secure from township trustees fees for services rendered to the worthy poor.

Inasmuch as no bill had been prepared for this purpose, no action was taken.

A. J. McNamara, Lorain, moved that a committee of three be appointed by the president to wait upon the Governor and to request him to appoint a physician upon each of the boards of the benevolent institutions of the state. Carried.

J. W. Clemmer stated that a bill had been introduced by Mr. Hill, of Columbiana county, repealing the law giving possession of unclaimed bodies of convicts to the medical colleges, which would greatly hamper instruction in anatomy, and advised that this bill be opposed.

J. B. Talmage, Columbiana, moved that this bill be condemned. Carried.

It was moved that a synopsis of the bills acted upon be sent to the members of the Legislative Committee and House of Delegates by the secretary of the Auxiliary Committee. Carried.

It was moved that the transactions of this

meeting be sent out to the members of the committee. Carried.

The meeting thereupon adjourned.

THE MEETING OF THE HOUSE OF DELEGATES.

The president, C. L. Bonifield, called the meeting of the House of Delegates to order.

The matter of the legislative fund was taken up and discussed at length.

Dr. Clemmer said that only a portion of the \$1000 voted at Cedar Point had been raised as yet and urged all members who had not subscribed to do so at as early a date as possible.

It was moved that a letter be sent by the secretary to the county societies which had not responded to the call for this fund, urging prompt action in order that the thousand dollars be raised. Carried.

The president advised that all county societies raising funds for the legislative work turn the same over promptly to the state treasurer.

Brooks F. Beebe moved that an order be drawn on the treasurer for \$200 from the legislative fund to pay Attorney E. B. Kinkead.

J. H. J. Upham moved that the publication committee be empowered to raise the subscription price of *THE JOURNAL* of non-members to \$2.

H. R. Geyer, Zanesville, moved that the House of Delegates heartily approved of the work done this day by the Legislative Committee. Carried.

The meeting adjourned.

MEDICAL ECONOMICS

THE ORGANIZED MEDICAL PROFESSION AND POLITICAL DUTY

THE MEDICAL INSPECTION OF THE PUBLIC SCHOOLS.

The public schools are the "pride and glory" of the state. The improved methods of teaching and the architectural display of buildings attest the fact. Vast sums of money are expended yearly for the mental evolution of the boys and girls of today into the men and women of tomorrow.

The physical welfare of school children, however, as a necessary part of a composite system of education is much neglected. This is made manifest from the medical inspection of schools in other countries and in a few cities of this country.

It is stated that on the authority of such inspection that the average of school children is possessed of 25 to 30 per cent. of defective sight.

Dr. Frank Allport, whose investigations on this subject have been thorough, makes the statement in 1904, that of the fifteen millions of school children in the United States ten millions are suffering from some form of eye, ear, nose or throat disease. This announcement is startling. That it is at least approximately correct is attested by other investigators. The recent report of the investigations of the New York Committee on Physical Welfare of School Children is apropos. The report covers the investigation into the home life of 1400 school children who have been found by the school physicians to have physical defects. One of the conclusions reached is: "If children in New York schools are typical of school children throughout the Union, there must be in the schools of this country not less than twelve million children with serious physical defects."

This committee, composed of four physicians, advises:

(1) Each child in every school in the United States should receive a thorough physical examination.

(2) The attention of parents and family physicians should be called to the defects found.

(3) A careful "follow up" canvas should be made, to see that the defects receive treatment and that negligent parents be forced to give their children proper medical attention.

An inspection of the public schools of Cleveland disclosed 35,000 of the 100,000 school population suffering from some physical defect. It was estimated that on account of these defects the 35,000 pupils were four years behind their normal grades; that the cost per capital yearly was \$25, aggregating a loss of \$875,000.

Granting that this loss of nearly a million dollars in the economic management of the Cleveland schools is only relatively or approximately correct, the inference remains that the saving of a very large appropriation of the public funds the country over must be added to the moral and educational advantages that must come of the medical inspection of the public schools.

It requires no argument to show that the school inspection advised is based upon a sound policy in political economy and in educational interests. Physical defects act as deterrents to educational pursuits. Children handicapped by physical defects become laggards. They impede the progress of class work, and, thoroughly disheartened, they cease to attend school. Idleness and irresponsibility pave the way to misery and crime. The state has a duty in affording defective children fair opportunities for educational progress. The investment of public funds to this end is a matter of economics. It is likewise a matter of altruistic and educational advancement.

The cry that paternalism is not within the province of the state is so much sophistry when pitted against the fact that she provides funds for the education of her subjects and "truant officers" to enforce school attendance.

The medical inspection of schools is an important factor in the administration of public health affairs. The early detection and isolation of communicable diseases are easily accomplished. The greatest opportunity for the prevention of epidemics rests with this public service.

The inspection of schools for communicable diseases and for physical defects is enforced in Massachusetts under the provision of a law passed last year. The enforcement of the law is placed with the Board of Education, excepting in

cities where the Board of Health operates under its provisions.

After absence on account of sickness or unknown cause every child must be referred to the medical inspector for examination, and every pupil who shows signs of being in ill health or of suffering from contagious diseases is held under observation. The principal notifies the parent or guardian of any child found to be suffering from disease or defect, advising medical attention. In case the disease is contagious, the health office is notified.

Every child is carefully tested and examined at least once every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work or requiring a modification of his school work in order to prevent injury to the child or to secure the best educational results. The tests of sight and hearing shall be made by teachers. Advisory notices in cases of discovered defects and disabilities are sent to the parent or guardian by the principal, as in cases of sickness.

The law further provides that the State Board of Health shall prescribe the directions for the tests of sight and hearing. Local authorities furnish test cards, blanks, record books and other useful appliances pertaining to inspection. City councils shall provide the necessary funds.

In Vermont and Connecticut similar laws are in force.

In New York and Illinois school inspections are made under authority of the State Board of Health. In Texas, Kansas, Minnesota and Montana testing for eye, ear, nose and throat defects is provided for by the State Board of Education.

Like all other reformatory work in the interest of the public good, the medical inspection of schools is of slow growth, simply because legislative bodies and the general public do not fully understand and appreciate the benefits proposed by this movement.

The provisions for the Massachusetts act should be enacted for Ohio. They embrace public health interests and reduce the public expense. They propose increased moral and educational achievements.

The pharmaceutical and medical professions, under cover of mutual interests and in ethical relations to the public, should stand for each other and the principles of professional organization. The relation of both professions to the public is based upon the interests of the patient, as being

of primary and supreme importance and upon a fair and honest statement of technical facts. Any pharmacist or physician violating this ethical rule by making false statements or using secret methods or ignoring the interests of the patient in order to promote his own is an enemy to professional organization. The line of demarkation between the ethical physician and the charlatan, between the ethical and unethical pharmacist, is well defined.

The interests of the public are identical with the vital principles of the twin professions. Organization in either profession is necessary to maintain these principles against the invasions of the mountebanks and commercial tricksters. Professional dignity and integrity depend upon organization of each profession in order to maintain ethical relations and ethical standards. Strip the sister professions of organization standards and ethical conduct toward the laity and they would no longer deserve or receive public respect. They would descend to the level of the quack and the fakir.

In the last five years an active campaign in the reorganization of the medical profession has been conducted by and honest and able effort the country over. Much has been accomplished; much remains to be done. The progress of this work has called attention to a lack of corresponding reorganization on the part of the pharmaceutical profession. As an expression of this dereliction, two years ago representatives of the State Pharmaceutical Association were arrayed against representatives of the State Medical Association before committees of the Legislature in consideration of the "patent medicine" legislation. The principles of professional organization should have united these contending forces. What a falling off from the grace of ethical conduct when the pharmacists unfurled the dirty flag of commercialism in the face of the professional principles! This event characterizes the relation existing today between the two professions and leaves the pharmacists to play shuttlecock between the Great American Fraud and the public.

While pointing out the sins of the pharmaceutical profession, we do not neglect our own shortcomings. United States Pharmacopeia and National Formulary preparations should often be prescribed instead of those represented by the sample loaded detail man.

Right relations between the two professions can be encouraged by supporting ethical druggists who alone can inspire physicians with the necessary confidence on which to base mutual interests. The identity and patronage of ethical

pharmacists by the county medical society is believed to be a matter of professional and public policy. The auxiliaryman has been requested to urge his society to this action. This movement is commended as tending to correct the evils of substitution, counter prescribing and the exploitation of nostrums. The ethical pharmacist will not allow his name to be used in the advertisements of fraudulent proprietaries or allow prescribed remedies of physicians to be wrapped in circular notices proclaiming the virtues of patent medicines, nor will he aid in the debauch of the public by the selling, unlawfully, of morphine, cocaine and other harmful drugs. The identity and patronage of the ethical pharmacists are protective of the interests of both professions and the public.

What is "independent" journalism in medicine?

It is not a question of politics, but one of public policy.

The Cleveland Board of Health has recently been decapitated.

The Legislature is in action. So is the organized profession.

The public comfort station on the State House grounds is coming.

The awakening of the public conscience favors the public health defense.

The Harrigan type of statesmanship in "The Man of the Hour" directs the sanitary administration of many communities.

In passing the hat for contributions to the legislative fund, a man eminent in the profession said, "Let those pay who are benefited." Less provocation has cited war between nations.

Mr. Cheney, of Hall's catarrh cure fame, and president of the Proprietary Medicine Manufacturers of America, is in the saddle directing the newspaper associations and the General Assembly.

The enemies to legislation to suppress the evils of the nostrum and quack advertisers do not appear in the open before committees of the Legislature, but hide in the rifle pits of a sub-

sidized press and in lying booklets distributed to lawmakers.

The medical interests of the public are identical with the cardinal principles of medical organization. That is the reason physicians stand for the public health defense, for pure food, pure drugs and a pure medical practice. Any political

aspirant whose record shows opposition to such measures is an enemy not only to the highest interests of the people, but to the medical profession. The medical profession, in taking an active interest in the present campaign, does not enter politics by advocating a candidate, but defends the principles of its organization by defeating the enemy of medical standards.

STATE BOARD NEWS

EXAMINATION.

The next examination before the State Medical Board will be held on Monday, Tuesday and Wednesday, June 8, 9 and 10, 1908. Applications must be filed not later than May 29.

ELECTION OF OFFICERS.

At the meeting of the Board on January 7 the following officers were elected for the ensuing year: President, A. Ravogli, Cincinnati; vice-president, S. M. Sherman, Columbus; treasurer, E. J. Wilson, Columbus; secretary, Geo. H. Matson, Columbus.

CHARGES AGAINST DR. GEORGE DISMISSED.

In the matter of application for the revocation of the certificate of J. F. George, who was accused of being addicted to the liquor habit to such an extent as to render him unfit for professional duties, a motion to dismiss the case on account of the character of the witness making the charge was sustained. The defendant, however, was warned by the Board concerning his habits and notified that he must conduct himself properly in the future.

HEARING POSTPONED.

In the matter of the application for the revocation of the certificate of R. E. Brake, which came on to be heard by the State Medical Board on January 7, the defendant requested a postponement until the April meeting. The request was granted. Brake has been the acting physician and "boy phenomenon" with the A. J. Adams outfit referred to in the January number of THE JOURNAL.

HOUSE BILL NO. 704.

House Bill No. 704, introduced by Mr. Elson, of Urichsville, by request of the state organization of "Neuropathic Magnetic Healers," "to regulate the practice of non-medical healing in

the State of Ohio," provides for the registration of all those who have been actively engaged in such practice in the state for the past four years. Any drugless cult may properly claim a place in this vehicle, and according to the provisions of the bill nothing much is necessary for registration by examination. A common school education, graduated from a recognized drugless school, and a fee—this permits entrance to an examination in anatomy, physiology and physical diagnosis (why not say obstetrics) and call themselves osteopaths? It would seem that the Christian Scientist might also seek admission to this school.

DECEMBER STATE BOARD EXAMINATION.

The December examination was held in Columbus on the 10th, 11th and 12th. Twenty-seven applicants appeared for examination in medicine and surgery, three osteopaths and seven midwives. The questions submitted were as follows:

SURGERY.

1. How would you treat a fracture of the neck of the femur in a patient seventy years old?
2. Give diagnosis and treatment of fracture of the patella.
3. Give causes and treatment of united fractures.
4. Give diagnosis and surgical treatment of a renal calculus.
5. Indicate treatment for hemorrhoids, both palliative and operative.
6. Describe an operation for the radical treatment of hydrocele.
7. Give some rules to be observed in administering a general anæsthetic.
8. Describe volvulus of the mesentery of the small intestine and give treatment.
9. Describe radical treatment for cure of femoral hernia.
10. How treat the stump in appendectomy?

ANATOMY.

1. Locate the principal groups of lymphatic glands.
2. What is the mesentery?
3. Describe the tibia.
4. Name the principal muscles of the back.
5. Describe the seventh cranial nerve.
6. Name in order the bones of the carpus.
7. Give

a description of the pylorus. 8. How are the muscles united to bone? 9. Describe the shoulder joint. 10. Name five muscles of the back of the leg.

DISEASES OF WOMEN.

1. Give indications for hysterectomy. 2. Describe two recognized surgical procedures for any uterine displacement. 3. Give some causes of leucorrhea. 4. Give symptoms and treatment of urethral caruncle. 5. Give chief causes of irritability of female bladder.

DISEASES OF CHILDREN.

1. Describe infantile paralysis. 2. Make the diagnosis of intussusception. 3. Give the treatment of impetigo contagiosa. 4. Give the treatment of gonorrhœal ophthalmia. 5. What is the prognosis of broncho pneumonia; tetanus; and chorea?

CHEMISTRY.

1. Give the formula for sodium sulphate. Show by equation how it is prepared. 2. What are isomeric compounds? Name two. 3. Distinguish between combustion, oxidation and reduction. Illustrate each by an example. 4. What is an anhydrid? Give an example. 5. What is carbonic acid and name its antidotes. 6. What is the difference between mercurous chloride and mercuric chloride? 7. How does CO_2 act as a poison? 8. Compare ozone as to (a) occurrence, (b) properties. 9. How would you proceed in a case of attempted suicide where strychnine sulphate had been used? 10. How does hydrogen exist in nature? Give its symbol, valence and atomic weight.

MATERIA MEDICA AND THERAPEUTICS.

(Regular.)

1. How does magnesium sulphate act as a purge? 2. Describe the effect upon the blood of the coal tar preparations; particularly explain the blueing of the skin. 3. Give some therapeutic indications for the use of salol. Is there any condition which contra-indicates its use? 4. Write a prescription for an emulsion containing the yolk of one egg and 35% cod liver oil. 5. What preparations of lobelia are used and in what amounts? What is its special therapeutic indication? 6. Should fluid extracts be prescribed with water? Give your reason. 7. Upon what theory is the therapeutic application of elastic pressure made in the treatment of varicose ulcers? 8. Briefly outline the therapeutic management of diabetes mellitus. 9. Describe the physiological action of ergot. 10. What have you to say about the following prescription:

R Pepsin grs. xx
Bismuth subnitrate
Sodium bicarb.....ãã grs. x
M. and make into one powder.
Sig. Give after eating.

PRACTICE AND PATHOLOGY.

1. What symptoms characterize the ataxic stage of tabes dorsalis. 2. How diagnose arterio-sclerosis? 3. What are the usual symptoms of uremia? 4. Diagnose and give treatment for nephritic colic. 5. Define auto-intoxication and name some of the diseases in which intestinal antiseptics are indicated. 6. Give etiology and treatment of bronchial asthma. 7. Make the diagnosis of multiple neuritis. 8. Name some diseases leaving enlargement of the spleen. 9. Give the symptoms and treatment of erysipelas. 10. State the symptoms and prognosis of mitral stenosis.

OBSTETRICS.

1. Describe briefly the changes which take place in the circulation after birth. 2. Make a differential diagnosis between ectopic pregnancy and suppurative salpingitis. 3. Where should the cord be ligated? How dress the stump? 4. What should be the criteria in determining how long the mother should remain in bed after labor? 5. What have you to say concerning the use of the postpartum douche? 6. What causes produce posterior rotation of the occiput? 7. Give briefly the prognosis and treatment of occipito-posterior positions. 8. What procedure would you adopt to arrest hemorrhage in placenta previa, the cervix partially dilated? 9. Give the signs and symptoms by which impending eclamptic seizure may be recognized. 10. What course would you advise at term, the conjugate diameter measuring two and one-half inches?

PHYSICAL DIAGNOSIS.

1. How and where is the normal apex beat found, and what diagnostic significance is derived from its displacement? 2. Explain the reduplication of the heart sounds. 3. What diagnostic significance is derived from aortic murmurs? 4. What pathological conditions are suspected from the presence of bronchial breathing? 5. Describe rales; their varieties and pathological significance. 6. Give physical signs of the presence of abnormal fluid in the abdomen. 7. How would you determine by physical examination abnormal conditions of the liver? 8. Mention two types of paralysis and their differences from anatomical regions. 9. Explain pathological significance of the presence of albumin in the urine.

PHYSIOLOGY.

1. What is the function of the cerebellum? 2. Describe the sympathetic nervous system and its function. 3. What changes take place in the circulation during sleep? 4. Explain the physiology of the eye. What is meant by accommodation? 5. Describe the blood current; its velocity and pressure. 6. Describe the mechanism of respiration. 7. What physical conditions affect changes in body temperature? 8. Through what channels and by what forces is the blood, in the general circulation, returned to the heart? 9. What is the composition of the gastric juice, and what is its function? 10. Define secretion and excretion. Give an example of each.

LIST OF APPLICANTS WHO SUCCESSFULLY PASSED THE DECEMBER EXAMINATION.

Robert T. Temple, Freeport, O., College of Physicians and Surgeons, Baltimore, 1906; Arthur W. Higgins, Bridgeport, O., College of Physicians and Surgeons, Baltimore, 1907; Dwight R. Canfield, Perrysburg, O., Toledo Medical College, 1907; Frank D. Crowl, Degraff, O., University of Pennsylvania, 1907; James H. Deyerle, Youngstown, O., University College of Medicine, Richmond, Va., 1901; Augustus L. Faler, Wapakoneta, O., Eclectic Medical Institute, 1905; Clarence P. Macdonald, Newark, O., Western Pennsylvania Medical College, 1907; Samuel L. Fisher, East Liverpool, O., Jefferson Medical College, 1907; Ralph Knowles, Portsmouth, O., University of Bellevue Hospital Medical College, New York, 1905; Frank J. Kuta, Cleveland, O., Cleveland College of Physicians and Surgeons, 1907; Richard L. Jett, Cleveland, O., Jefferson Medical College, 1907; Edwin A. Baker, Clyde, O., University of Buffalo, Medical Department, 1907; Elmer O. Peterson, Cleveland, O., Cleveland College of Physicians and Surgeons, 1907; Forrest L. Keiser, Columbus, O., Ohio Medical University, 1907; John P. Farson, Columbus, O., Ohio Medical University, 1907; George C. Sullivan, Dayton, O., Chicago Homeopathic Medical College, 1907; Alexander A. La Vigne, Cleveland, O., Cleveland Homeopathic Medical College, 1908; George J. Salisbury, Cleveland, O., Cleveland Homeopathic Medical College, 1906; Oscar Pan, Cleveland, O., University of Prague, Austria, 1902; John R. Meek, Cincinnati, O., Medical College of Ohio, 1907; Lewis A. Lavanture, Buckeye City, American Medical Missionary College, 1906; Leslie L. Bigelow, Columbus, O., Harvard Medical School, Boston, 1906; Charles S. Shriver, Columbus, O., Starling Medical College, 1906.

CORRESPONDENCE

THE NURSES' BILL.

To the Editor: Through the press the people of Cleveland and the state are being appealed to by the Cleveland Central Registry and the Ohio State Association of Trained Nurses in the support of a bill to establish a state bureau of registration for graduate trained nurses. The bill asks that only graduates of high schools and hospitals having a three years course of training be recognized as qualified to register or to be allowed to practice nursing as registered nurses.

The writer has had much to do with nurses during the practice of thirty-two years, besides having served as nurse and having been house physician at Lakeside Hospital before he began to practice, and it is his honest conviction that anyone who cannot master the duties of a well qualified nurse in two years' training at a reputable general hospital, at the longest, is not fit to undertake nursing at all. Many of our best physicians say that they do not want nurses to care for their patients who, after six months' training and practical experience, cannot carry out their directions and nurse in a thoroughly satisfactory way.

It seems to the writer and many physicians with whom he has conversed that the only excuse the promoters of this bill have for asking for a three years' course of training is the selfish desire of those in charge of large hospitals to debar graduates of two years' hospital training and to get without compensation at least one year more of service than is necessary of young women who desire to become nurses.

What seems to be another unfair ruling of hospital training schools is refusing to allow any credit to an applicant from another training school who desires to change, not even by examination. The excuse offered is the fear of lowering the standard of the school the student seeks to enter.

No such rule governs schools in other branches of learning.

When the writer graduated in medicine, a medical student was required to spend a year in study with a reputable physician, take two six month courses of lectures in two successive years in a medical college and pass a satisfactory medical examination before the faculty board of censors. The graduates of those days are among the best and most successful practitioners of medicine and surgery today.

The medical student of today in many colleges is required to possess a degree or to have at

least three years' study in a classical school before he can matriculate in a medical school. Then he must spend four years of eight months each and pass an examination before a state board of examiners before he can hang out his shingle, with a chance to earn his board if he is successful. He must face competition with Christian Science healers, osteopaths, masseurs, doctors of optics, drug stores, free dispensaries, great and small hospitals, sanitariums, cheap contract doctors for lodges, department stores, railroads and industrial plants of every kind and with many of the professors of the medical colleges and hospitals who are contracting with railroads to do their surgery for a pass and the empty honor of prestige, or, as they say, to get the family practice of the many employes.

Now comes this bill to make doctors out of nurses or require those who wish to nurse the sick for a living to spend more time to qualify themselves for that work than was required of a medical student twenty years ago to fit himself to practice medicine and surgery.

Some medical schools (Medical Department Northwestern University of Chicago) require students to be only high school graduates to matriculate.

If the family physician, like the little red country schoolhouse and the little shop around the corner, is to be supplanted and to be put out of business, and the people are to have only nurses, specialists and doctors connected with hospitals, and nurses are to act as feeders for hospitals and specialists by advising that in serious cases the patient should be sent to the hospital, then let a bill be passed as stiff or stiffer than the New York law, which requires graduate or those who wish to become legally registered to pass an examination of which the following questions, propounded at the January (1906) examination by the Board of Regents, are a fair example.

State the probable cause of convulsions in the newborn infant and your treatment. Give treatment of croup. Give causes, symptoms and treatment of ricketts. What does hemorrhage before labor indicate? Give treatment. Describe process by which bacteria multiply. Name three diseases in which bacteria are thrown off by the skin.

Why is it necessary for a nurse to know all this treatment unless she is put to her services in competition with the doctors?

Nearly every physician has experienced the embarrassment of having an unfriendly pseudo-medical critic at the bedside in the person of a nurse. If women must give three years to qual-

ify and must pass such an examination as the above, they must demand a high rate of compensation, and the number must necessarily be restricted.

It seems to be the ultimate object of the promoters of this proposed bill to debar those who have had only two years' training and graduates of small hospitals from registration as graduate nurses and prevent the unregistered graduates from having any standing or nursing for pay, which is in violation of the anti-trust law and in restriction of trade.

The writer suggested to Mr. Strong, assistant secretary of the Chamber of Commerce, that a copy of the bill should be sent to every physician in the state, that it may be discussed in every medical society, and that were the legislative representatives instructed how to vote, the sentiment of the profession being obtained, justice shall be done and a law passed that is fair to the profession, the nurse and the public.

It seems that a fair solution to the matter is to pass a law requiring two years' training in any reputable general hospital, and admitting all such graduates to register as graduate nurses.

Let those who wish to fit themselves as expert nurses take such advanced training in post-graduate schools as is necessary to qualify themselves as experts in that branch of nursing they desire to follow, and let such graduates register as expert trained nurses and command a fee in harmony with their advanced training. Such a law would provide a limited number of expert trained nurses for the specialist and rich patients and an abundance of amply qualified, moderately priced nurses to care for the multitudes of ordinary cases under the care of the general practitioner.

Yours very truly,

F. H. TODD.

Cleveland, Ohio.

BOOK REVIEWS

THE INTERNAL SECRETIONS AND THE PRINCIPALS OF MEDICINE. By Charles E. de M. Sajous, M. D. Volume second. F. A. Davis Company, Publishers, Philadelphia, 1907, 1873 pages. Price, cloth, \$6.00.

In contemplating the second volume of Sajous' work one is confronted by evidences of investigation and research which are simply monumental. The vast amount of literature which alone has been read, digested and applied pro or con is nearly overwhelming, but to this the author has added his own observations in original investigations, broached theories ingeniously supported and made applications therefrom for the treat-

ment of disease which should demand the earnest attention of the medical profession.

The importance of the internal secretions has only been recognized in recent years, and one hesitates to prophesy how far the research into this new field will lead. The development of Sajous' theories are in many respects revolutionary, but one cannot but hope that farther investigations will substantiate his work in endeavoring to place the practice of medicine on a less empiric and more scientific basis.

The reviewer feels an inability to fittingly criticize or judge the work, but recommends it to the careful consideration of thoughtful practitioners. The author shows throughout his careful, painstaking conscientiousness in his deductions, and these therefore should be given a thorough trial in the everyday practice of medicine, which should be the final test of all theories.

MODERN MEDICINE: ITS THEORY AND PRACTICE. In original contributions by American and foreign authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia, and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume III, *just ready*. Price per volume: Cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$7.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1907.

The third volume of Osler's *Modern Medicine* is well up to the high standard already set by the preceding volumes. It contains the discussion of infectious diseases and treats of each in the same thorough and exhaustive manner. The same excellent policy is displayed in the selection of writers because of their being especially conversant with the topics they describe.

Chapter I is taken up with the discussion of Malaria fever, and it is difficult to conceive of anyone better able to write of it than Colonel Bruce, who, since he first isolated the specific organism several years ago, has had special opportunities for studying the disease in its natural habitat, and necessarily treats of it in an authoritative manner. But few cases comparatively have been reported in this country, and possibly a better understanding of the subject resulting from the careful perusal of the article may still further reduce the number

Beriberi, in Chapter II, has more practical interest for American readers because of its preva-

lence in our new possessions, the Philippines. Herzog writes from a thorough personal knowledge obtained in those islands and in Japan, and treats of it exhaustively and at the same time in an exceedingly interesting manner.

Of the subjects described in Chapter III, rabies is of the greatest interest to the practitioner. The pathology and post-mortem diagnosis of the rabid animal are particularly good.

Chapter V, dealing in gonococcal infections, shows the wide range of the lesions which may be caused by this organism and should draw attention to the possibility of its presence in many conditions which would be otherwise overlooked. The writer has shown that almost every tissue may be involved, and therefore this chapter is of interest not only to the general practitioner and surgeon, but to practically all specialists as well.

Chapters VII to XI, inclusive, treat of the great subject of tuberculosis in all its bearings in a thoroughly exhaustive manner. Three hundred pages are devoted to the etiology, pathology, symptoms, diagnosis, prophylaxis and treatment of the various manifestations of this disease. From every point of view it is studied and described, making a treatise that gives as concisely and clearly as possible practically all that is known on the subject. These chapters form an extremely valuable addition to our literature and cannot be too highly praised.

Chapter XII is taken up with the thorough consideration of syphilis. The pathology, symptomatology and diagnosis are all given with the scholarly and painstaking treatment of the subject characteristic of the distinguished clinician and author whose name heads the chapter. The description of the etiology is particularly interesting, and the technique for obtaining the micro-organism is the final word on that subject up to date.

The consideration of the treatment of this disease is unusually satisfactory and quite in keeping with the preceding sections of the chapter. Not only are the hygienic and prophylactic measures mentioned, but the drugs to be used are given in detail, with their indications.

This chapter, with those immediately preceding on tuberculosis, will especially appeal to the medical profession as a whole.

Space forbids detailed reviewing of the remaining chapters. Suffice it to say that in Part II the diseases of the Respiratory tract are ably treated by exceptionally qualified writers, and their subjects are discussed in a manner quite in consonance with the high character of the work as a whole.

Volume III carries out in full the promises of the prospectuses, and the medical profession is indeed fortunate in having such a magnificent work of reference.

A TEXT-BOOK OF PRACTICAL GYNECOLOGY. For Practitioners and Students. By D. Tod Gilliam, M. D., Emeritus Professor of Gynecology in Starling-Ohio Medical College, and sometime Professor of Gynecology, Starling Medical College; Gynecologist to St. Anthony and St. Francis Hospitals; Consulting Gynecologist to Park View Sanitarium, Columbus, Ohio; Fellow of the American Association of Obstetricians and Gynecologists; Member of the American Medical Association, of the Ninth International Medical Congress, etc. Second, revised edition. Illustrated with 350 engravings, a colored frontispiece, and thirteen full-page half-tone plates. 642 royal octavo pages. Extra cloth, \$4.50, net; half-morocco, gilt-top, \$6.00, net. Sold only by subscription. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia.

It is a rare pleasure to find a portable book on gynecology which contains all the practical points the physician or student of medicine wishes for ready reference. Such is the second revised edition of "A Text-Book of Practical Gynecology," by D. Tod Gilliam, M. D. The three hundred and fifty engravings mainly illustrate everyday phases of gynecologic practice and are not so diagrammatic as to lead the tenderfoot astray.

The author has fulfilled the promise given in his preface. "I have endeavored to make this book plain and practical for the student and busy practitioner. I have dispensed with bibliographic references and have made few citations of authorities. Mooted questions have been given scant attention, and effete matter has been excluded. In the choice of technique I have aimed to give sufficient variety to meet the varied requirements and no more. Scientific methods in classification and arrangement have not been strictly adhered to whenever, in my judgment, a plain, connected narrative would render the text more intelligible.

"The book is divided into fifty chapters of as nearly uniform length as possible, to correspond to the number of lectures and recitations usually allotted to the subject during a collegiate term."

One picks up the book, perhaps, for a cursory glance or a reference, and is attracted to a close reading of its pages. Every sentence is pat and interesting. Conditions are described as they exist, and the memory is not burdened by purely ideal classifications. Tiresome histological and pathological details are omitted.

The short sections on germs and germ infection contain all that is practically necessary, as

also those on instruments, preparation and after-treatment of abdominal section. The brevity is pleasing.

The descriptions of operations are extremely lucid. The author's own operation of ventro-suspension of the uterus is a typical example; and his description of an ovariectomy in the case of an ovarian cyst weighing one hundred and seventy-six pounds is remarkably vivid and of more literary finish than one usually finds in text-books.

The chapters on the ureters and kidneys are written by J. H. J. Upham and are characterized by the same direct, concise and practical nature as the rest of the book.

The index of regional symptoms at the end of the book is very useful.

PROGRESSIVE MEDICINE, VOL. III, SEPTEMBER, 1907. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia, Pa. Octavo, 290pp., with 15 engravings. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00, carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia, Pa.

This volume is an unusually good one and a fit successor to those that have preceded it. The first article, "Diseases of the Thorax and Its Viscera, Including the Heart, Lungs and Blood Vessels," by Dr. William Ewart, is especially worthy of mention. Pulmonary tuberculosis and the relation of bovine to intestinal tuberculosis receive considerable attention, and many interesting points are presented. Heart block and cardiac therapeutics are also briefly discussed. Under the head of "Obstetrics," Edward P. Davis goes at length into the toxæmia of pregnancy in an article extremely interesting and instructive. The report of many cases makes this a very valuable contribution. Dr. Davis has brought out a great deal relative to the processes and management of labor that will be of general interest. The other articles, while less pretentious, are equally good, and the whole makes a splendid addition to our literature.

DYSPNOEA AND CYANOSIS. By Prof. Edmund Von Neusser of the University of Vienna. Translated by Andrew McFarlane of the Albany Medical College, New York. Published by E. B. Treat Co., New York, 1907. Price, cloth, \$1.50.

This work is another of the very valuable series of treatises brought out by these pub-

lishers dealing with subjects of such broad interest as to render them impossible of adequate consideration in the ordinary text-books. It consists of clinical considerations of the disorders of respiration and circulation, dealing in the "how" and the "why" in the way to give an excellent understanding of the underlying conditions and thus render treatment intelligent and scientific. The hope of the future for the practice of internal medicine lies in the better training of the mass of the profession along such lines. Text-books are necessary, and always will be, but they are necessarily limited in scope and collateral reading of the above character is becoming a necessity to the progressive internist. The translation is admirably adapted to American readers, and the volume is earnestly recommended to thinking practitioners.

THE ESSENTIALS OF MEDICAL GYNECOLOGY, ACCORDING TO ECLECTIC, OR SPECIFIC, PRACTICE OF MEDICINE IN THE TREATMENT OF DISEASE. By A. F. Stephens, M. D., Professor of Medical Gynecology in the American Medical College, St. Louis, M. 12mo, 428 pp. Fully illustrated. Cloth, \$3.00. The Scudder Brothers Co., Publishers, Cincinnati, Ohio.

A volume devoted to the medical treatment of diseases of women which will meet with a cordial reception from many general practitioners who believe that the profession today is too ready to resort to surgical measures in this class of cases. The title proclaims the book, which was written by an eclectic and advocates the eclectic methods of treatment. To believers in this system of therapeutics it will serve a purpose, but will have little call from the regular profession. There is undoubtedly a demand for more light on this subject, but it should be treated in a more comprehensive manner than is done in this volume. The work of Dr. Stephens is commendable as a step in the right direction.

THE INTERNATIONAL CLINICS. The 17th series, Vols. III and IV, a quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Gynecology, Orthopedics, etc., by leading members of the medical profession throughout the world. Edited by W. T. Longcope, M. D., Philadelphia, Pa. Published by the J. B. Lippincott Co., Philadelphia and London.

The interest and appreciation of the medical profession in the International Clinics are maintained to a remarkable degree in this valuable publication. A careful perusal of the four volumes of 1907 shows why the interest has been kept so active and that the reputation of the series is amply justified.

In Volume III Edsall's article on diabetes is a valuable effort in the application of many theoretical considerations of the treatment of diabetes and will be found of considerable aid to the practitioner confronted by the many difficulties of this disease.

"Mechanotherapy," by Wainwright, is a timely contribution on the subject of massage, the neglect of which has been a reproach to the medical profession and has given rise to the half-baked "school" of osteopathy. More interest in this subject and better understanding of its principles is a great need at the present time.

Tuberculosis, always an interesting and important topic, has been treated from three rather uncommon points of view. Bullock, on the curability of tuberculosis, sounds a note of warning against the prevailing optimistic views in advanced cases, and from careful observations sums up the situation very conservatively, but justly.

Stanton gives his results of some very interesting studies of the blood pressure, and Roberts writes in his usual clear and interesting manner on some of the surgical aspects of the disease.

Among the many other valuable contributions to this volume, Porter's article on two cases of primary carcinoma of the liver, Loeb's on individuality of tumors and the endemic occurrence of cancer, Young's on prostatectomy and Craig's on the malarial plasmodia are worthy of especial mention.

Volume IV.—This volume opens with an extremely interesting paper on the treatment of tetanus by intra-spinal injections, written by J. M. Henry. The remarkable results in relieving the sufferings, even though not reducing the mortality, will appeal to everyone who has witnessed the distressing conditions of the victims of this disease. Further investigations of this method should be encouraged.

The second article, by Warthin, is a timely and conservative discussion of the value of the X-ray treatment of leukæmia. His conclusions are well drawn and amply justified.

Professor Chantamesses writes of his experience in the last five years in the use of an antityphoid fever serum in the hospitals of Paris, and his statistics show clearly a relatively lessened mortality compared with the other institutions of the same city during the same period of time.

The article by Pancoast on a study of gastroptosis from the radiographer's standpoint is extremely valuable and interesting. The illustrations, consisting of sixty-seven plates, show all varieties and types of the condition.

Calmette, of Lille, presents a new tuberculin test for the early detection of tuberculosis. This method, which he calls the "ophthalmo reaction on tuberculin," is free from the dangers (real or supposed) of the ordinary test and seems worthy of further study.

Cumston's discussion of surgical syphilis is continued and presents some unusual features of that disease. There are many other excellent papers in this volume which space forbids us to particularize.

The record of 1907 leads one to anticipate with lively interest the new productions of the current year.

METABOLISM AND PRACTICAL MEDICINE. By Carl Von Noorden, Professor of the First University Clinic in Medicine. Vienna Anglo-American Issue under Editorship of I. Walker Hall, Professor of Pathology, University College, Bristol. Vol. III, The Pathology of Metabolism, by Carl Von Noorden, H. Solomon, A. Schmidt, A. Czermy, H. Steinitz, C. Dapper, M. Matthews, C. Neuberger, O. Loervi, and L. Mohr. Cloth, price, \$6.00, net. Chicago, W. T. Keener & Co., 1907.

The third and last volume of Metabolism and Practical Medicine series appears almost simultaneously with the original German edition. A number of changes have been made in the English edition. Certain recent work has been incorporated, and tables giving analytic and calorific values of the common foods have been added. Among the subjects considered are diabetes mellitus, gout, obesity, affections of the ductless glands, effects of various agents—as drugs, light and Roentgen rays, mineral waters cancer and other conditions. To each division especially full and valuable bibliographies are added.

The volume consists in a compilation of facts and theories brought up to date, with critical considerations of each. In a field where modern investigation and research are making constant and sweeping changes such a work must be subject to continual alterations and additions.

To review a book of this nature in detail is impossible within the limits of the notices of this JOURNAL. Diabetes mellitus and glycosuria still remains the problem upon which the greatest interest and work of investigators in metabolism is centered. More and more do the opinions of Von Noorden verge to the belief that nearly all glycosurias are potentially diabetic.

Different grades of severity occur, as in all other affections. Very little is known of the exact pathologic changes occurring in diabetes mellitus, but owing to the vast amount of work

done in the investigation of its metabolism we really are better equipped to treat diabetes than nephritis, the pathology of which is comparatively well known. Von Noorden does not accept as proved the relationship of diabetes to the islands of Langerhans.

Although this work is of more value to the investigator, it is also of use to the practicing physician. The translation is good.

THE ELEMENTS OF THE SCIENCE OF NUTRITION. By Graham Lusk, Ph. D., M. A., F. R. S., (Edin.), Professor of Physiology at the University and Bellevue Hospital Medical College, New York City. Illustrated. Published by W. B. Saunders Co., Philadelphia and London.

In the application of laboratory methods in the exact feeding of the sick internists of this country are far behind our continental cousins. It is to be hoped that the appearance of the above work will lead to a better understanding of the underlying principles and to considerable improvement in the lax methods now in vogue.

Professor Lusk, after an introduction devoted largely to a historical resumé, devotes several chapters to the physiological considerations of the changes in foodstuffs as shown by the analyses of the faeces, the effects of starvation, the influence of proteid and other varieties of foods, with the varying demands of the body according to the character of muscular or other activity. He thus works up to a normal diet for healthy individuals. From thence he discusses the disturbed metabolism in various diseased states, such as anæmia, myxedema, Graves' disease, diabetes, gout, fevers and the like, whence he indicates the proper food to be prescribed.

The plan of the treatise is worked out with great care, and all assumptions and conclusions thoroughly supported. It is a valuable addition to our literature, and its careful study will amply pay one who seeks to practice scientific medicine.

A mutual understanding between the physician and patient in the management of a serious fracture must always be effected with regard to the ultimate result, the time and effort necessary to re-establish the greatest degree of function.—*Senn.*

A surgeon who is brought in by the attending physician or relatives to consult with regard to the proper treatment of a case, cannot be held liable for the acts of the attending physician, except in so far as they may result from his service.—*Medico-Legal Bulletin.*

COUNTY SOCIETIES

FIRST DISTRICT

At the last meeting of the Adams County Medical Society for 1907, J. W. Irwin, of Winchester, read a paper on infantile convulsions. For the attack he would use chloroform inhalations or chloral (gr. jv, per rectum), if necessary, in a child six months old; then treat cause, if known. Teething or worms are rarely causes.

DISCUSSION.—Dr. Stephenson would add warm baths.

Dr. Gaston had seen one case where a child, apparently well, had been taken to a neighbor's, and, while asleep, placed on a bed by a window. The weather was very warm. Convulsions came on, and the child was dead in two hours. He had seen the case early and found the temperature 108.5. He thought it possibly a case of sun-stroke.

Dr. Crawford had recently seen a case where convulsions were plainly impending—it had recently suffered an attack. He gave a full dose of ipecac, and no further trouble ensued.

Dr. Stephenson reported a death from convulsions due, as he supposed, to indigestion.

Dr. Irwin, in closing, said that he had not attempted to go into details as to treatment except for the convulsions proper. The various causes must receive their usual treatment.

Dr. Crawford reported a case of necrosis of the inferior maxillary, affecting it at and above the angle. The trouble seemed to have originated in a carious molar tooth some eighteen months before he saw the case. There was a sinus at the angle, slight discharge and some swelling, which had been mistaken by previous attendants for glandular trouble. Some spiculæ of bone were removed, the opening enlarged, and a large piece of the ramus, including the condyloid process, came away. Only slight deformity has resulted, and the child, six years old, is apparently well.

Drs. Gaston and Sproull reported a case of uterine polypus, with exhibition of specimen. The growth weighed almost two pounds, was olive-shaped, so that when it became prolapsed it could not be returned to the vagina. The pedicle was short and thick. Its removal was accomplished as an emergency measure. Two days later there was hemorrhage, controlled by packing, from which she was greatly reduced, but finally recovered. They were astonished that the woman could carry this tumor and do hard work. At the time of the prolapse she was just finishing a day's washing. She completed her task and walked

almost half a mile to her home after the prolapse occurred.

E. M. Foster reported a case of inversion of the uterus that came on while he was delivering the placenta by Credé's method. He was able to right the uterus immediately without the patient knowing anything had happened. He thought inversion would have occurred with any other method of delivery. None present had seen this condition.

The secretary was instructed to call the attention of the members to the matter of subscriptions to the legislative fund.

C. E. Wamsley, of Wamsley, and James Hilling, of West Union, were elected to membership.

The Highland County Medical Society met Wednesday, January 8, at 10:30 a. m. Program: President's address, T. W. Duvall; report of cases, Wilson, Roberts, Teachnor and others; miscellaneous business. At 7:30 p. m.: Paper, "Some Practical Suggestions on the Treatment of Open Wounds," V. B. McConnaughey; "Some Practical Suggestions on the Treatment of the Diseases of the Nose and Throat by the General Practitioner," A. H. Beam.

The Butler County Medical Society met at Howe's Hall, 250 High street, Hamilton, Ohio, on Thursday, January 23, at 3 p. m. Program: "Skin Grafting," Harry Silver; "Hernia in the New Born," F. M. Fitton; "Treatment of Varicose Veins," H. E. Twitchell.

SECOND DISTRICT

The Darke County Medical Society met in regular session at the Treaty City Club January 8. The feature of the day was the reading of a very able and instructive paper by J. E. Hunter on "The Relation of Eye Lesions to General Practice."

The paper was discussed by Drs. Fitzgerald, Jones and Metcalfe. Closed by Dr. Hunter.

Harrison C. Riegle was admitted to membership. Seventeen members were present. The interest in our society is growing, and it is expected that soon all the eligibles in the county will be enrolled.

The fourth annual meeting of the Second Councilor District will be held at Piqua Thursday, February 20. The following very interesting program has been prepared: Address on

medicine, "The Value of Blood Pressure Records in the Diagnosis and Treatment of Diseases Dependent on Arterial or Angio-sclerosis," D. W. Greene, Dayton; "Some Clinical Manifestations of Cardiac Physiology," L. C. Grosh, Toledo; "The Anatomic Physiologic Basis of Pediatrics," D. S. Hanson, Cleveland; address in surgery, M. L. Harris, Chicago, Ill. After the above program, the annual dinner will be served.

THIRD DISTRICT

The Hancock County Medical Society met at the City Hospital January 2, 1908. After dinner, which was served to the society by the nurses, the president, N. L. McLachlan, called the members to order. There were no papers, but several cases were reported, which created much discussion and made the session one of interest.

J. M. Firmin reported the following case of tri-facial neuralgia: W. M., male, age fifty-two. Present illness dates back about three years, when he began having neuralgic pains shooting from the right side of the upper lip upward along the nose into the eye and over the forehead. Occasionally the pain involved the whole upper jaw. The patient was able to keep the pain under control by the use of various remedies until about October 1, 1907, when nothing seemed to relieve. At that time the pains became severely spasmodic and were accompanied by muscular twitchings, involving the whole left cheek and left eyelid. The paroxysms occurred at intervals of three minutes to three hours. The upper teeth were removed, with no relief. At the time he came under my care he was confined to bed and at times was almost maniacal from the pain. He was taking from two to four grains of morphine every twenty-four hours, with little relief. The slightest touch on the cheek, mustache or upper gums would cause a paroxysm. He was able to take liquid diet only, dropped into the opposite cheek.

Alcohol was injected into the infra-orbital nerve at its exit on the face, but with little relief. On November 30 one-half dram of 95% alcohol was injected into the superior maxillary nerve at its exit from the foramen rotundum, after the method recommended by H. T. Patrick, of Chicago. The relief from pain was instantaneous. There has been no return of the paroxysm since the injection. Just three weeks after the injection there was a mild attack of pain along the left side of the nose, but it has not returned since.

I regard the case as one of tri-facial neuralgia, and the relief obtained by the injection of alcohol as certainly most gratifying.

Dr. Tritch, in discussing this paper, had not used the alcohol injections, but, having had success in sciatica by using injections of nuclein, had been tempted to apply same treatment to cases of tri-facial neuralgia, injecting along the course of nerve and at the more sensitive spots, with success.

John V. Hartman reported a case of continued headache as having been entirely relieved, after many other means had failed, by treatment of the ear.

Mrs. C. W. R., aged twenty-four. Two children, aged four and two. Housewife. Home surroundings good. Family history negative. Tongue thickly coated white; complexion very sallow; general expression showed great suffering; complained of a very severe headache; never free from headache entirely, but it was much aggravated by any exercise or excitement. She called it a brain-ache, as it seemed situated within the brain and would not respond to any external application. After being up town shopping or after entertaining callers for an hour, she would spend the rest of the day in bed.

She had had her nose and throat treated for catarrh, had been treated for malaria, and had taken some pelvic treatment, all with no relief of the headache. I inquired about her hearing. She had had no trouble with her ears so far as she knew. Upon further questioning, she told me that when a little girl she had an abscess in her right ear, but that it had never given her any trouble since. I examined the auditory canal and found that it was much larger than normal and lined with crusts. When attempting to remove these crusts it caused most excruciating pain, both in the ear and head—pain in the head similar to the usual headaches.

After applying cocaine and examining more carefully, the entire floor and anterior wall were found to be ulcerated.

The headaches were much worse for twenty-four hours after the examination. It took several days to get the crusts removed by the use of peroxide. I then used 12% iodoform in glycerine in the canal, which healed very rapidly. She has had no headache since the first thirty-six hours after the examination.

A case of renal colic, by Don C. Hughes, having been treated with large doses of morphine, brought out a lengthy and general discussion of H. M. C. anæsthesia.

S. G. Herrington was elected to membership. The applications of E. B. Herrington and Frank Rogers were received and referred to censors.

The Lazear-Carroll communication was read

and favorably acted upon, the secretary being instructed to write Ohio Senators and our district Representative urging them to support and vote for the bills allowing the widows of these two physicians pensions.

The Logan County Medical Society met January 2. The following officers were elected for the year 1908: W. S. Phillips, president; Carrie Richeson, vice-president; F. B. Kaylor, secretary; W. G. Stinchcomb, treasurer; J. S. Deemy, delegate; L. L. Pratt, alternate.

The following papers were read at the post-graduate meeting of the society:

"Ether Anæsthesia by the Open Drop Method," by L. L. Pratt, his method being based upon 200 anæsthesias without a fatality.

W. C. Ray read a paper on "Erysipelas" and reported a case which was treated with the injection of the antistreptococcic serum. The case made a rapid and almost immediate recovery. Both papers were freely discussed.

The committee on program reported their work completed and subjects assigned for the different meetings of the year. Our first year's work with the post-graduate proved more than satisfactory to the physicians of our county, and we are hopeful that this year's will prove to be as good, if not better.

The Seneca County Medical Society held their regular monthly meeting at the Shawan Hotel, Tiffin, January 16. President E. H. Porter acted as host to a 6 o'clock dinner.

H. B. Gooding was elected a member of the House of Delegates, and E. H. Porter a member of the auxiliary committee.

E. H. Porter read a very interesting paper on "The Diseased Tonsil and Its Removal."

The Allen County Medical Society met in regular session January 7. The following program was carried out: "The Doctor's Medicine Case," F. L. Bates; discussed by Drs. Vail, Creps, Dickey, Terwilliger, Steiner, Parent, Rudy, Weger, Johnson and Bates. "Ammonium," S. B. Hiner.

A joint meeting of the Van Wert County and Allen County Medical Societies was held at Delphos January 21. The program was as follows: Address of welcome, Dr. Bliss, Delphos; "The Doctor and Some of His Phases," F. P. Kreider, Van Wert; discussion, Drs. Hall, Krei-

der, Huntley, Bates, Vail, Perry, McGavran, Parent, etc. "The Art of Health," Shelby Mumaugh, Lima; discussed by Drs. Rudy, Bates and Mumaugh. Following the meeting a banquet was served. The object of the meeting was to organize a tri-county medical society, of Van Wert, Allen and Putnam counties, to meet four times a year.

FOURTH DISTRICT

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met December 27. The general subject was "Backward Displacements of the Uterus."

S. D. Foster read a paper upon "The Pathology and Etiology and Symptomatology and Diagnosis." He said in part that among the causes of the displacements are pregnancy, certain occupations and pelvic inflammations, as metritis. The pathology depends to a certain extent upon the etiology. In the presence of inflammation of the pelvic peritoneum more or less adhesion will be present. The altered position may produce mechanical engorgement, resulting in enlargement, œdema and hyperplasia. The endometrium undergoes certain changes, which may be manifested particularly during the menses. In certain cases the uterine ligaments show marked changes. These may be relaxed and elongated. If there is an exudate present, this may be absorbed with the production of contractures and atrophic changes.

J. F. Fox read a paper upon "Suspension and Ventral Fixation of the Uterus." He said that in 1885 Howard Kelly performed the first ventral suspension. By suspension is meant a procedure by which the uterus is attached to the peritoneum, but is not fixed, having a limited range of motion.

By ventral fixation is meant a condition in which the fundus is fixed to the anterior abdominal wall. Dr. Fox spoke of the normal position of the uterus and the factors which come into play in retaining the uterus in position.

The operation of ventral suspension consists in attaching the fundus of the uterus to the peritoneum low down near the bladder and in as easy a position as possible. Dr. Fox warned against certain steps that are sometimes taken that make the operation a veritable fixation. Dr. Fox believes that the real function of a properly performed suspension is to hold the uterus in place until a normal circulation can so restore the tone of the organ that it will functionate properly. The technique of the operation was then described in detail.

Ventral fixation is a procedure which aims to firmly and permanently fix the fundus of the uterus in contact with the abdominal wall. The fundus is either sacrificed or sewed directly into the abdominal wall. The main indications for suspension are binding down of the uterus by adhesions, diseases tubes and ovaries, destruction of the ligaments in attempted shortenings.

Dr. Fox also spoke of the course of a number of cases under his observation during pregnancy. Nearly all complications follow ventral fixations, not neutral suspension. There is an abundance of evidence that a carefully suspended uterus can pass through gestation and delivery with no more complications than occur in an ordinary case of pregnancy. If each method were employed as indicated, it is certain that few serious complications would be encountered. If they are employed contrary to indications, they are likely to lead to failure or complications and possible disasters.

W. H. Fisher read a paper upon "The Operations Upon the Uterine Ligaments."

The Academy of Medicine of Toledo and Lucas County held their annual meeting January 3. The following officers were elected for the year 1908: President, C. N. Smith; vice-president, George L. Chapman; recording secretary, N. Worth Brown; financial secretary, E. Tucker; treasurer, J. G. Keller; censor, W. H. Snyder.

The Medical Section of the Academy of Medicine of Toledo and Lucas County held its regular meeting on Friday evening, January 17, at 8:15 o'clock in the auditorium of the Y. M. C. A. Building. Clyde C. Kirk, of the Toledo State Hospital, read a paper on "The Diagnosis of Locomotor Ataxia." He said, in part, that the disease should be diagnosed in its incipient stage, as at this time there is some chance of benefiting the patient. Two-thirds of all cases of tabes are misdiagnosed, according to Kirk. The disease is confused with rheumatism, neuralgia, neurasthenia, etc. Diagnosis rests upon signs, rather than symptoms. The causes of the failure of diagnosis in so many of the early cases are careless examinations and too much dependence upon the patients' history of syphilis. The various diagnostic symptoms and signs were fully considered. Lancing pains, absent knee jerks, argyll—Robertson pupils and Romberg's sign were discussed in respect to their diagnostic importance. The conditions from which tabes must be differentiated are multiple neuritis, multiple

sclerosis, syphilitic pseudo-tabes, paralytic dementia, ataxia paraplegia and neurasthenia. Multiple neuritis shows history of alcoholism, lead or arsenic poisoning or previous infections. Development is rapid. Pupillary signs are absent; bladder and rectum are not disturbed; muscular atrophy is present, and in many cases psychoses occur. Multiple sclerosis shows nystagmus, scanning speech, intention tremors, increased knee jerks. However, the signs will vary, depending upon the location of the lesions. Syphilitic pseudo-tabes may simulate genuine tabes. Peculiar tendon reflexes—as, irregularity upon the two sides, implication of the lateral columns, unilateral mydriasis, unilateral reflex iridoplegia, association of motor paralysis, may lead to the differentiation.

Paralytic dementia is a cerebral, not a spinal disease. Mental symptoms, as delusions, scanning speech, twitching of the tongue, etc., lead to the diagnosis. Ataxic paraplegia is differentiated by the spastic paralysis and increased knee jerks. Neurasthenia may simulate tabes, especially among physicians, who may be alarmed over a supposed absent knee jerk. Careful examination will always rule out neurasthenia.

Nelson H. Young read a paper upon "The Treatment of Tabes Dorsalis." He said that the disease depended upon permanent changes in the neuroses, and therefore recovery is impossible at any stage, and that remissions may occur, which may be credited to therapeutic endeavor. The question whether anti-syphilitic treatment is indicated in the various stages of tabes was taken up in detail. Certain it is that in the final stages it is contra-indicated.

Dr. Young personally believes in the value of mercury and the iodides in the treatment of tabes, especially in the early stages. He has seen such cases get better and even become stationary. After the first stage of tabes, treatment is general and symptomatic. The value of rest was emphasized. Alcohol and tobacco are interdicted. Monotony is to be avoided. Drug treatment is unsatisfactory. Silver nitrate, ergot, potassium iodide, bichloride of gold, phosphorus, belladonna and arsenic have all been tried and discarded. The use of morphine to control pain was discussed. Hydrotherapy is commended. Electricity has given some results. The "suspension method" has not proved satisfactory. Nettler believes Frankel's reduction exercises the best in use today. They are useful in all stages of the disease. These patients, according to Young, offer a favorable field for the quack and the charlatan. The physician should not neglect

to keep up the spirits of these cases, which is one of the strong points of the quack's method.

The papers were discussed by Drs. Miller, Snyder, Grosh, Ferneau, Young, Kirk and others.

Immediately after the adjournment of this section the Physicians' Defense League of the Academy held its annual meeting.

The Pathological Section of the Academy of Medicine of Toledo and Lucas County met January 10. The general subject was "Tabes Dorsalis."

Frank D. Ferneau, of the Toledo State Hospital, read a paper upon "The Etiology of Locomotor Ataxia."

He said in part: Sexual excesses were given by Hippocrates as a cause. Alcohol and nicotine are predisposing factors. Heredity is not a direct cause, but a predisposing one in individuals with a neuropathic taint. Inherited syphilis, according to Dr. Ferneau, is probably never a cause, though numerous cases of tabes have been seen in children of tabetic parents. Other predisposing causes are wet, cold, various occupations—as soldiers, sailors, actors, artists; while, on the other hand, it is comparatively rare in clergymen. Traumatism may bring forth a latent tabetic condition previously unrecognized.

Certain blood conditions cause the development of a disease allied to tabes clinically and pathologically, with changes in the posterior columns of the cord and symptoms sometimes those of pure tabes. These conditions are pernicious anæmia, diabetes, Addison's disease, tuberculosis, carcinoma of the stomach, poisoning with lead, arsenic and ergot.

Tabes is more common in men than in women. Race has some influence. The disease is uncommon among negroes, Japanese and Africans, although syphilis is common.

All above causes pale into insignificance when compared to syphilis as a cause. The more civilized, the more syphilized. This fact was first recognized by Duchenne in 1859, but in the seventies Fournier said he had not encountered a case in which the possibility of a previous syphilitic infection could be excluded. Marie says, "No syphilis, no tabes."

Although no set of statistics has yet been produced in which a positive history of syphilis was obtained in every case, this does not affect the belief of most men that syphilis is the only cause. Statistics usually give 75 to 85 per cent. as syphilitic. The remaining cases have been called meta-syphilitic or para-syphilitic. Others believe tabes is a fourth stage of syphilis.

George R. Love read a paper upon "A Review of the Pathology of Locomotor Ataxia."

The disease was dignified as a chronic, progressive disease of the spinal cord and peripheral nerves, characterized clinically by inco-ordination, pains, anæsthesia and various visceral, trophic and other symptoms and anatomically by a degenerative sclerosis, chiefly marked in the posterior columns of the cord and posterior roots and to a less extent in the peripheral nerves. The history of the disease was sketched from the time of Hippocrates. The names of Duchenne, Stanley, Todd, Romberg, are closely associated with the development of our knowledge of the disease.

The degeneration of the posterior columns is the most constant finding. Burdach's columns, especially in the lumbar and dorso-lumbar regions, and Goll's columns, higher up, are seen to be grayer, smaller, harder and less punctuate than normally. Clark's column, Lissauer's tract and the posterior cornua are included in all cases. Two things are known today—first, that the disease is not an inflammation, but a progressive degeneration; secondly, that this degeneration occurs in the peripheral sensory neurone, whose cell body rests in the posterior root ganglion.

Microscopically, this symmetrical, bilateral, posterior degeneration is seen to originate in the nerve fibers and run through the usual course. The blood vessels exhibit no congestion, irritation or inflammation.

As regards the cranial nerves, the disease is selective, the optic nerve being the most affected. Optic atrophy occurs in from 10 to 35 per cent.

Certain trophic disturbances are of pathologic interest. Among these are tabetic arthropathies, deformities of the feet, perforating ulcers, etc. The arthropathies are a form of rarefying osteitis and do not differ anatomically from arthritis deformans, except fractures may accompany it. The enlargement and swelling is painless and is due to a degenerative change in the nerves supplying the joints and bones.

The discussion was opened by Louis Miller. He spoke of the pathology and of the various forms of sclerosis that may occur after anæmias and which might be confused with true tabes.

John Wright spoke of the nomenclature of the disease.

Dr. Dickey spoke of the relation of tabes to syphilis. He has had cases in his practice in which there was absolutely no history of syphilis.

Drs. Snyder, Lukens, Ferneau and Love took part in the discussion.

The Paulding County Medical Society met January 15. The general subject of the meeting was "The Physical Diagnosis of Diseases of the Lungs." Dr. Sherrard, of Oakwood, read a paper, which was followed by discussion. The society resolved to urge upon the Congressman the importance and justice of providing suitable pensions for the widows of the heroes, Drs. Lazear and Carroll.

FIFTH DISTRICT

The Erie County Medical Society elected the following officers for 1908: President, Charles Graefe, 703 Market street, Sandusky; vice-president, John T. Haynes, Soldiers' Home, Erie county; secretary and treasurer, Carrie Chase Davis, 826 Washington street, Sandusky; delegate, Wm. Storey, Castalia; alternate, A. F. Cook, Odd Fellows' Temple, Sandusky. Committee on public policy and legislation: Charles H. Merz, 720 Madison street, Sandusky; F. N. Haughteling, Huron; Smith Gorsuch, Castalia.

The annual meeting for 1907 of the Lorain County Medical Society, at the Andwur Hotel, Elyria, was called to order by the president, Dr. McNamara, the attendance being about fifty. After the reading of the November minutes and their approval, the order of procedure was changed, and the unfinished and current business was taken up. A letter from the Kentucky State Association relating to proprietaries was read and the secretary instructed to answer the communication, giving the resolutions passed upon by this society at the November meeting. A letter from Dr. Ford, of the Cleveland Academy of Medicine, asking for the names of members holding insurance with the Physicians' Casualty Company, of Omaha, Neb., was read and ordered placed on file by a motion of Dr. Young.

The application of Bert E. Garver, of Lorain, was read, approved, and, after a vote, the secretary accepted him into membership.

The reports of the president, secretary and treasurer and chairman of the board of public policy and legislation were given.

The election of officers resulted in the following: S. V. Burley, president; Chas. H. Cushing, vice-president; E. Cameron, re-elected treasurer, and John B. Donaldson, elected secretary, after withdrawing his name. Chas. B. Garver was elected to the board of censors, the other officers retaining former office. Following the election a banquet was served, at the conclusion of which John Lowman, of Cleveland, J. W. Clemmer, of Columbus, chairman of the Board of

Public Policy and Legislation, W. E. Lower, councilor of the Fifth District, and Mr. Hoffman, editor of the Lorain Times-Herald, delivered addresses, as follows:

John Lowman, professor of practice of medicine, Western Reserve University, "The Distinction Between Exact Topical Diagnosis and Philosophical Diagnosis."

In brief: The class of hemorrhagic diseases was carefully analyzed. Purpura hemorrhagica, Schoenlein's disease, Baroch's disease, Henic's purpura, scorbutic purpura, typhus fever, pernicious anæmia and the so-called hemorrhagic diathesis were individually considered. The history of each disease from a point of etiology disclosed the fact that all blended into one another on this one pathologic fact, that the hemorrhage resulted independent of the cause of the disease or one of the following conditions resulting from the disease, thrombi in small capillaries due to congestion of the blood or disease of the blood vessels themselves causing stasis, then hemorrhage.

The rheumatisms were analyzed, showing their individual characteristics, the acute infectious and the chronic progressive. The chronic progressive was divided into a number of classes due to different causes, such as Charcot's disease and arthritis deformans. The leukaemias were next studied and a relation established—pseudo-leukaemia, Hodgekin's disease, the lymphatic splenic myelogenous leukaemia, the lympho-sarcomatosa and others.

In the study of tubercular caseous pneumonia, Virchow had denied the relation of tuberculosis to the caseous pneumonia until Koch's finding of the tubercle bacillus put at rest all doubt. The absence of tubercles did not any longer separate this disease in its origin from tuberculosis.

Therefore, in conclusion we herald this appearance of medical thought as it will simplify medical observation.

J. W. Clemmer read a very interesting paper on "Medical Legislation," and disclosed first the great American frauds and quackery in medicine and then the remedy, the work the State is doing and contemplating, and the necessity for support in a liberal way from the profession if the proper laws are to be enacted. These few lines do not even attempt to sum up the importance of this paper.

Mr. Hoffman, editor of the Lorain Times-Herald, said that many newspapers were in sympathy with the efforts for a clean news sheet, but the transition must of necessity be slow and that he feared that if both the income from pat-

ent and proprietary medicine advertisements and the revenue from publishing civic and municipal advertisements were withdrawn at one time the loss to the papers would be so great as to threaten their survival, and if such a move were contemplated by the medical profession the fight on the part of the associated press would be a great detriment to the cause, which otherwise would gradually work out its own solution.

W. E. Lower, in a brief talk, thanked the society for the kindly relations that had existed between the society and himself and hoped that the work in the society would grow and bring forth much good. He spoke on co-operation between the society and the general good of the profession.

The fourth annual banquet of the Lake County Medical Association was held at the Parmly, Monday evening, January 6, with the following members and guests present: T. Clarke Miller, of Massillon; W. E. Lower and F. H. Todd, of Cleveland; Dr. Dixon, of Ashtabula; Drs. Winans, Quayle and Sneider, of Madison; Drs. Moore and Tanner, of Willoughby; Dr. Lowe, of Mentor; Drs. Fisher, House, Carmedy, Sherman, Root, Brady and Hawley, of Painesville.

The retiring President, J. V. Winans, acted as toastmaster, and Dr. Moore, the President-elect, took charge of the business session later in the evening.

The guest of the evening, T. Clarke Miller, of Massillon, presented a most interesting and up-to-date paper on "The Psychological Facts of the Treatment of the Sick," W. E. Lower, of Cleveland, councilor of Fifth District, read a paper on "Some Harmonies," which was heartily applauded.

The new officers for the year are: President, T. M. Moore, of Willoughby; vice-president, F. House, of Painesville; secretary, C. M. Hawley, of Painesville; treasurer, M. H. Carmedy, of Painesville; delegate, H. G. Sherman, of Painesville; auxiliary committeeman, C. F. House.

The Wayne County Medical Society held one of its most interesting meetings Tuesday afternoon, January 15, afternoon and evening. The afternoon meeting was held in the reception rooms at the City Hospital.

A. B. Campbell presided, and D. P. Shie, of Orrville, was secretary. The following named physicians were present: Drs. Ryall and Graven, of Wooster; Paul, of Shreve; Spencer, of Doylestown; Campbell, Shie and Blankenhorn, of Orrville; Yoder, of Blachleville; Irvin, of Creston;

Dawson, of Sterling; Pumphrey, of Massillon; Wishard, of Persia; Hay, of Rittman.

Officers for the ensuing year were elected and are as follows: Norman Dawson, president; Thomas Elder, vice-president; John Irvin, secretary; H. Blankenhorn, treasurer; censors, Dr. Spencer (for three years), A. B. Paul (for two years), and Dr. Hay (for one year).

A. B. Campbell was named as the delegate to the State Society.

The following physicians were proposed for membership: Dr. Sheldon, of Marshallville; Dr. Hanna, of Canaan and Dr. Smith, of West Salem.

The following program was carried out: Address, Charles J. Aldrich, of Cleveland, on "Some of the Etiological Factors of Neurasthenia." Papers, Harry J. Stoll, of Wooster, "Pyosalpinx"; and George W. Snively, of West Lebanon, "Auto-Intoxication and Its Relation to Medical Work." Discussion of papers. Reports of cases, Drs. Thomas A. Graven, R. C. Paul, Guy M. McDowell, J. J. Kinney, John Irvin, E. H. McKinney.

Drs. Stoll, Snively and Aldrich being absent, their subjects were not presented. Drs. Graven, Paul and Irvin each related some important cases from practice, on obstetrical subjects.

Evening Session: The evening session was held in the dining room of the Archer House. It consisted of a banquet, followed by an address by Park L. Myers, of Toledo, on the subject "Medical Pseudo-Orthodoxy." The address was eloquent, interesting, instructive, and entertaining, manifesting great versatility on the part of the orator. This address was followed by remarks by a few persons present.

The dining room and tables were decorated for the occasion with cut flowers and red crosses. The favors were carnations. Thirty-five or forty doctors and their wives and other ladies sat down to the banquet.

The fifteenth session and annual meeting of the Ashland County Medical Society was held at Ashland, Tuesday, January 7, with the largest attendance in the history of the society. The following program was rendered:

Paper, "Septic Infection of the Extremities," A. L. Sherrick. Discussed by Drs. House, Dotterweich, Reibel and Sherrick.

Paper, "Graves' Disease: History, Pathology, Etiology, Symptoms and Treatment, with Report of Case," G. W. Jacoby. Discussion, Powell and House.

Paper, "Some Benign and Malignant Tumors

of the Mammary Gland," A. F. House, Cleveland, Ohio. Discussion and queries, Drs. Riebel, Wirt, Emery, Dotterweich, Cowan and House.

Paper, "Diphtheria, Complications and Treatment," W. M. McClelland. Discussion, Drs. L. B. Ash, Wirt, House and McClelland.

In discussion of the services and sacrifices of Jesse W. Lazear and James Carroll, with whose record all physicians are familiar, a resolution was unanimously adopted, asking the unqualified support of the two Ohio Senators, as well as that of Congressmen, from the Sixteenth District, to the passage of a bill granting to the widows of the deceased physicians named a pension of \$125 per month, not only as a matter of justice, but as an official recognition of appreciation for valuable services rendered.

The election of officers for the ensuing year resulted as follows: President, W. H. Wirt, of Loudonville; Vice President, F. V. Dotterweich, Ashland; Secretary, W. M. McClelland, Ashland; Treasurer, G. B. Fuller, Loudonville; Delegate to State Association, A. L. Sherrick; Alternate, W. M. McClelland; Auxiliary Committeeman, O. J. Powell; Board of Censors, Frank Cowan, R. C. Ash, O. J. Powell.

The committee on program for 1908 reported one special subject for each meeting, and assigned a member for each subject. It was also decided to continue the independent papers for the present, the society not caring to make any radical change from the present popular methods.

Following the regular meeting the members, their wives and friends enjoyed a banquet at Shoemakers, with the following program: Toastmaster, W. M. McClelland; "Modern Surgery," A. L. Sherrick; "A Few Peculiarities I Have Noticed Among the Brethren," F. V. Dotterweich; "The Physician, His Social Life," W. F. Emery; "The Doctor's Wife," W. H. Wirt.

Stark County Medical Society met January 21. The program was as follows:

Sections: Prevailing Diseases and Therapeutics—"Gyniatrics," L. B. Santee, Marlsboro; "Surgery," H. P. Pomerene, Canton; "Obstetrics," W. C. Steele, New Berlin. Diseases of Women and Children—"Puerperal Eclampsia," S. S. Barnes, Massillon; "Hygiene and Sanitation," J. F. Marchand, Canton; "Ethics and Legislation," J. C. Temple, Alliance; valedictory address, N. W. Culbertson, Massillon; Secretary-Treasurer's report, G. F. Zininger, Canton; report of counselor for Sixth Ohio District, T. C. Miller, Massillon; election of officers for 1908.

SEVENTH DISTRICT

The Columbiana County Medical Society held its regular monthly meeting, January 15. A number of very interesting clinical cases were presented. The following papers were read: "Bier Treatment," John Dickinson, Cleveland; "Anemia," S. N. Sallume, Salem. The papers were generally discussed.

EIGHTH DISTRICT

The regular December meeting of the Perry County Medical Society was held in the Probate Court room at this place Thursday and proved to be one of the most profitable and interesting sessions ever held here.

After an interesting program, a special dinner was served to the members and visitors of the society at the Park Hotel.

The following officers were elected for the ensuing year: J. W. Croft, Corning, president; J. M. Denison, Crooksville, vice-president; J. G. McDougal, New Lexington, secretary-treasurer; J. H. Wright, delegate to state convention; N. T. McTeague, legislative committeeman; C. B. Holcomb, Corning, A. Richards, New Lexington, and B. A. Thomas, Rushville, censors.

The January meeting of the Muskingum County Medical Society was held Wednesday evening, January 8, in the Board of Education rooms in the market-house. H. T. Sutton, president, presided, and papers were read by C. H. Hanna on "The Operations for Gall Stones," and by W. A. Melick on a gunshot wound case of the thoracic cavity when the post-mortem showed the ball in the pericardiac sac. Both papers were of great interest and were followed by discussions by the members present.

Action on the death of E. H. Gee was taken, the resolution committee, composed of O. M. Wiseman, Granville Warburton and C. H. Higgins, presenting the following resolutions, which were adopted:

"Resolved, That the members of the Muskingum County Medical Society wish in this public manner to show their respectful sympathy to the mourning relatives and friends of E. H. Gee for the loss of a dear one, made doubly great by the untimely and violent manner of his death.

"Resolved, That we recognize the loss to the community and our society of this member, both for his personality as a citizen and his skill as a physician.

"Resolved, That we reverently bow our heads to the Giver of all things, realizing even in our weak way that though we would have it otherwise, He knoweth and doeth all things well."

The society also ordered a floral design, and it was decided the society's officers should attend the funeral in a body. The officers are: President H. T. Sutton, Vice-President R. B. Bainter, Secretary O. M. Wiseman, State Representative Geyer and Member of the State Society Granville Warburton.

NINTH DISTRICT

The Jackson County Medical Society met in Coalton January 7.

W. H. Parker read a paper on "Early Signs and Symptoms and Diagnosis of Acute Glaucoma."

E. T. Dando read a paper on "Membranous Croup."

Both papers were freely discussed by all members present.

J. S. Hunter reported a case of obstruction of the bowels, as follows: December 18, 1907, was called to see a young man, sixteen years of age, who had been taken suddenly ill with cramping and vomiting. At the time of my first visit I found temperature normal, pulse 80. Constant pain in stomach, with acute exacerbations every fifteen to twenty minutes, followed by vomiting of a yellowish fluid. Easier after vomiting. Bowels moved normally day before. Sore over appendix on deep pressure. Clinical history negative, save a prolonged attack of cholera morbus one year before. Treatment, paragoric and calomel. This quieted the pain and vomiting. Better next day, December 19, but on December 20 I was sent for again, and I found my patient worse, vomiting more frequent and of a darker color. Pain more severe. Could not retain food or water. Bowels had not moved for three days, although cathartics had been pushed vigorously, as well as rectal injections. A diagnosis of bowel obstruction was positive at this time, due probably to intussusception in the coecal region. Communicated with a surgeon at this time, and time set for operation early next day. Next morning, December 21, three days after inception of case, J. H. Ray, of Coalton, Ohio, performed abdominal section, making an incision four inches in length in the median line. The first coil of intestine which presented itself was incised, a tube inserted and allowed to drain. Time of operation, fifteen minutes. After patient became conscious, he spoke of his great relief. Pulse 96; temperature normal. At intervals of fifteen or twenty minutes the contents of the bowels would spurt out through the tube like a geyser. Patient rested well through the night.

Next morning, December 22, temperature 101½, pulse 110. Not so well. In the evening, tem-

perature 102, pulse 115 and irregular. December 23, temperature 102, pulse 120. Bowels swollen and very tender on pressure, especially in region of appendix. Contents of bowels coming out of the abdominal opening outside of tube, showing that the bowel wall was giving way where the tube was inserted and tied. Next day the tube came away entirely, and the artificial anus was complete, showing how quickly adhesion had taken place between the intestine and abdominal wall. Contents of abdomen continued to discharge. On tenth day a messenger called me hurriedly to inform me that a portion of the bowel twelve inches in length had been passed by the patient, followed by a complete evacuation of the bowels, per rectum. Bowels moved normally the next day, and the artificial anus ceased to discharge. The patient began eating voraciously and gained rapidly. Incision in the abdomen healed over spontaneously five days after bowels began moving.

Until bowels moved an injection of warm water was given twice a day, as much as could be retained. When one quart of water was used, all would be retained. When one-half gallon was used, a part would come away an hour or two after using. One-half pint of hardened feces was brought away, all told, by these repeated injections.

Diet of liquids was enjoined. Patient ate an orange at one time, and in two hours the pulp had stopped up the tube, and it was removed with a crochet needle.

At this time the patient has apparently made a complete recovery.

The Gallia County Medical Society held its regular meeting in Gallipolis January 8. William Miller took the chair and made a brief inaugural address. The treasurer, E. B. Morrison, made his annual report. Mary A. Austin stirred up a lively discussion by a paper upon "The Formation and Diagnostic Value of Casts in the Urine." The essayist clearly and forcibly outlined the positive value of the various casts in diagnosing the several forms of nephritic diseases. The liberal discussion which followed, emphasizing points of the paper, brought forward, among other things, evidence showing that there were many instances of casts in the urine of negative significance, there being no collateral corroborative signs or symptoms and necropsy findings negative. The further consideration of some of the various phases of nephritis and its complications will furnish the subject matter for next meeting.

The Pike County Medical Society held its first meeting of the year at the office of O. C. Andre on Monday afternoon, January 13. The attendance was good, and L. E. Wills, of Omega, gave an instructive talk on "La Grippe," which was discussed at some length by the physicians present. It was decided to hold a special meeting on February 3, at which time some of the leaders in the medical profession throughout the state will be present to make addresses. The program, which is now being prepared, will be followed by a banquet and smoker.

The Jackson County Medical Society met in regular session at Jackson December 3. The program consisted of the following: J. E. Sylvester reported a case of intestinal intussusception in a child one year of age successfully treated by rectal injections. J. J. McClung exhibited specimens of thread worm. J. F. Morgan reported a case of mastoiditis. J. H. Ray reported a case of necrosed drum of the ear in a boy aged ten years. W. E. Williams reported a case of double otitis media. Dr. Parker and J. F. Morgan discussed operation for adenoids. Dr. Gahm reported improvement in a case of sarcoma of neck treated by injections of Coley's fluid.

Five dollars was voted to the aid of the State Committee on Public Policy and Legislation.

The following officers were elected for the year 1908: President, J. J. McClung; vice-president, G. E. Jones; secretary, W. J. Ogier; treasurer, D. W. Davis; censors, J. L. Gahm.

TENTH DISTRICT

The Columbus Academy of Medicine held its regular meeting January 6. The program was as follows: "Use and Abuse of the Curet," J. F. Baldwin; "Some Things a Medical Society Should Do for Its Members," A. S. Barnes.

Dr. Barnes spoke of the advantages the society might gain from a formal study of the principles of medical ethics, inasmuch as a better ethical conduct would award the profession with a higher standing in public esteem. Society membership should be a guaranty of at least average personal character and professional qualification, subject to automatic forfeitures on serious lapse from this estate. When choosing a consultant, preference should be given the man who is an active society worker and ethical physician. The educational value of such a course upon the profession itself would be exceedingly wholesome.

"Under present conditions we have many more physicians than necessary. With one-third our present number of medical schools we should still

be numerically 62 per cent. more liberally supplied, relatively to population, than is the German Empire, to which we look with so much respect for things accomplished in our scientific development. The state classifies its school-teachers, but not its health teachers; protecting the public in one case, licensing a lottery in the other. When physicians shall be licensed by the state after comprehensive examination, as first, second or third class physicians, the public will have a measure of protection.

"With the proper appreciation of the fact that one's health is his best business asset and a well founded belief that physicians are fairly able to conserve this most precious possession, there will be less glaring discrepancy between the lawyer's and physician's fees."

The paper was discussed by Drs. Clemmer, Matson and Means.

J. F. Baldwin presented the following specimens:

(1) Greatly enlarged gall bladder, with very thick walls, and containing one very large gall stone, which had been firmly impacted in the cystic duct. The tumor had simulated a greatly enlarged kidney, but a differential diagnosis had been reached by inflating the colon.

(2) A dermoid tumor, the curious feature of which had been a long bone, something like a small fibula, running directly across the tumor, the contents of which had been of the usual character. Two teeth were growing from one end of this bone, which was about four inches long.

(3) A curiously shaped bone, somewhat resembling in outline a very small rib, which had formed around the upper margin and partly down one side of a large ventral hernia. The recti muscles had been widely separated, and the bone had apparently formed at the common junction of the peritoneum, transversalis fascia and fascia of the external oblique. It was about four inches in length and occupied about one-third of the margin of the hernial opening.

(4) Uterus, presenting primary tuberculosis of the endometrium, the patient being of advanced years and the general symptoms suggestive of malignancy.

(5) A calcified fibroid of the uterus, in which the calcification was so complete as to require the use of a saw to open the tumor. The fibroid had been pedunculated and associated with an intramural fibroid, which had become malignant.

(6) Uterus containing two necrotic fibroids about two inches in diameter. The patient, a maiden lady, sixty-four years of age, had passed

the menopause fifteen or sixteen years before and had supposed that she was in perfect health. Pelvic symptoms had developed about two months before, but after about a month there was acute infection of the right kneejoint and of the left axilla. When the patient was brought to the hospital, about a month later, the right knee was entirely disorganized, there was much pus in the tissues of the left axilla, the uterus was clearly infected, and the patient generally septic. Amputation was made through the thigh and the armpit cleaned out. A week later, patient's condition being such as to warrant it, a hysterectomy was made, and thus the real source of the infection removed.

(7) A pedunculated fibroid, which had been attached rather low down to the posterior wall of the uterus. It had interfered with delivery and had probably been the cause of the death of the fetus during full term confinement. Patient entered the hospital some months later for removal of the fibroid. On examining the specimen, the distal end of it was found to have broken down into an abscess.

All the patients from whom the above specimens had been removed had made or were making uneventful recoveries.

The Ross County Academy of Medicine met at Chillicothe on January 14. E. W. Mitchell, of Cincinnati, delivered an address on "Pneumonia." The paper was a very practical one, dealing with prophylaxis and treatment and discussing rather fully the subject of pneumonia in children.

C. L. Bonifield, president of the State Association, was present and gave a talk on the subject of medical organization, how to keep up interest in the county meetings and of the public duties of the doctor as a public sanitarian, and brought up the subject of the recent controversy between the medical and other naval officers, giving in this connection some reference to the medical aspect of the Spanish war and some of the serious defects of the Chickamauga camp, which he had investigated during the Spanish war, and contrasting our serious medical defects with the opposite conditions shown by the Japs in their recent war with Russia.

One of the best meetings of the year of the Madison County Medical Society was held at the Neil House, in Columbus, Friday, December 27.

J. F. Baldwin, of Columbus, read a paper on "The Use of the Curette."

Owing to the absence of W. H. Christopher,

who was to have read a paper on "Indolent Leg Ulcers," S. J. Goodman, of Columbus, kindly consented to read a paper on "Choice of Anæsthetics," which was very interesting and practical.

J. H. J. Upham, secretary of the State Society, gave a short talk on society work.

Hon. D. J. Schurr, member of the Legislature from Madison county, was a guest of the society and gave it the assurance that he would do all in his power to assist in the passage of such medical legislation at the coming session as the Ohio State Medical Society should recommend. The society then adjourned to the dining room of the Neil House, where a sumptuous dinner was served to the members of the society and their guests.

NEWS NOTES

E. H. Gee, of Zanesville, was instantly killed by being struck by a C., M. & V. train while on his way to see a patient. Dr. Gee was one of the wealthiest colored physicians in the state and a graduate of Wilberforce and the Rush Medical College.

James A. Ambrose, the aged Dayton physician who was received at the penitentiary January 4 for a term of eighteen months, was assigned as a nurse in the prison hospital.

The commission named to select and purchase a site for the proposed home for crippled and deformed children, decided to defer action until some disposition is made of the bill introduced in the Legislature by Senator Harper, of Cincinnati, which provides that two such homes be built, one near Cincinnati and the other near Cleveland.

The Columbus State Hospital received a bequest amounting to \$3660 from the estate of William Jones, of Steubenville. The bequest was made nineteen years ago, when \$2500 was set aside, the interest of which and the residue of an estate of \$10,000 were to revert to the hospital on the death of a sister. A similar bequest was made the institution twenty-seven years ago, when Matthew Russell, of Jefferson county, bequeathed \$18,000. No restrictions were placed upon either bequest, the management of the hospital being allowed to disburse the money in a manner deemed best.

John H. Gross, of Lancaster, sustained a fracture of three ribs December 23, when his buggy collided with a street car.

Arthur H. Buck, Delaware, has succeeded Perry W. Willey as coroner of Delaware county.

William J. Taylor, of Cincinnati, who has been seriously ill, is convalescing.

A. J. Erwin, of Mansfield, is spending the winter in California.

John S. Beck, of Dayton, was elected president of the tuberculosis committee of the Montgomery Medical Society.

Representative Braun, of Franklin county, introduced a bill, which, if passed, will require counties to establish and maintain hospitals for indigent sufferers from tuberculosis. The measure was suggested by the recent attempts to have such a hospital established in Franklin county. The measure has the endorsement of Secretary Probst, of the State Board of Health, of physicians in general and many citizens in other parts of the state. Counties which cannot afford to support or build a tuberculosis hospital will be required to pay the cost of supporting patients sent to hospitals in other counties.

The Society for the Prevention and Cure of Tuberculosis, Columbus, has appointed J. J. Alcorn to systematically examine all school children suspected of being tuberculous.

Charles A. L. Reed, chairman of the legislative committee of the American Medical Association, sent the following telegram to Admiral P. M. Rixey, at Washington: "Your demand and the President's order giving the medical corps of the navy actual control where it has actual responsibility, command grateful approval by the hundred and forty thousand physicians of the United States."—*Lancet-Clinic*.

O. S. Sellenings has succeeded W. E. Edmiston as a member of the Columbus Board of Health.

Denver C. Burns, assistant physician to the Institution for Feeble Minded, Columbus, has resigned. H. R. Berry, Columbus, was appointed to the vacancy.

The commission named to erect a hospital at Lima for the criminal insane has recommended to the Governor that \$200,000 be appropriated for the purpose.

James M. Rector, of Columbus, has returned after a month of post-graduate work at Chicago.

Senator Schmidt has introduced a bill to put all health department employees under civil service.

J. A. Dickson, one of the best known physicians of Youngstown, was murderously assaulted on the night of January 14 while returning from a professional call in the outskirts of the city. There was no attempt at robbery.

S. B. Marvin, of Cincinnati, was elected president of the Board of Education.

Physicians of Fayette county have organized for the purpose of conducting a hospital at Washington C. H.

Mark A. Brown, of Cincinnati, has been appointed health officer.

James U. Barnhill, of Columbus, has retired from the editorial staff of the Columbus Medical Journal.

L. M. Early, of Columbus, is spending a month in California.

C. R. Holmes, of Cincinnati, sustained a fracture of the right forearm December 8 while attempting to crank his automobile.

George M. Hannah, of Cygnet, who has been at the Protestant Hospital, Columbus, with an infected hand, is recovering.

William H. Knauss, of Newark, has been appointed health officer.

Samuel T. Orton has resigned his position as pathologist at the Columbus State Hospital and, after his marriage in February, will leave for Anaconda, Mont.

Hobert Reeder, an attendant at the Athens State Hospital, was convicted of manslaughter and sentenced by Judge Wood to three years in the penitentiary. He was convicted of mistreating an aged patient, which resulted in death.

If the bill introduced by Representative Alder, of Cincinnati, is acted upon, "baby farms" and lying-in hospitals will be compelled to take out

licenses, employ regular physicians and make reports. Legislation of this character should receive the support of the profession.

ANNOUNCEMENT.

PROGRAM FOR THE NEXT MEETING OF THE STATE ASSOCIATION.

The next annual meeting of the Ohio State Medical Association will be held in Columbus on May 6, 7 and 8, and all members desirous of reading papers before the various sections should send the titles of the same at an early date.

MEDICAL SECTION.

Unusual efforts are being made to provide an extremely interesting program for this section. Members wishing to present papers on medical topics or report cases will please address all communications and send titles of the papers to the secretary. Chairman, Geo. Fackler, Cincinnati; secretary, J. D. Dunham, The McLene, Columbus.

SURGICAL SECTION.

The program for the surgical section is now being made up. A symposium on the surgery of the digestive tract will be held. Members desirous of appearing on the program will please communicate with the chairman, George Goodhue, 133 North Perry street, or the secretary, W. A. Ewing, Dayton.

SECTION ON OBSTETRICS AND PEDIATRICS.

This is a new section, and it is the hope of all that the members interested in these branches of medicine will respond promptly and furnish a program that will establish at once the success of this department. Address communications and titles of papers to the state secretary until further notice.

SECTION ON DERMATOLOGY AND GENITO-URINARY DISEASES.

The program for this section is still open for a number of papers. From present indications a very interesting and instructive group of subjects will be presented. Any member of the State Association wishing to read a paper, report a case or offer a specimen pertaining to dermatology or genito-urinary diseases should send his subject to the secretary as soon as possible. Chairman, E. O. Smith, Cincinnati; secretary, W. I. Le Fevre, Rose Building, Cleveland.

EYE, EAR, NOSE AND THROAT SECTION.

The eye, ear, nose and throat section program is rapidly filling, and we can already assure the men interested in this section of the society a program both interesting and instructive.

Wendell C. Phillips, of New York, will be the guest of this section at the Columbus meeting, and will give an address pertaining to the present status of radical mastoid work.

There is room on the program for about six or eight more twelve-minute papers on nose and throat subjects, and the secretary would like to hear from those desiring a place on the program.

The following titles are suggested: "Syphilis of the Upper Air Tract," "Laryngeal Neuroses," "Non-suppurative Chronic Otitis Medica," "Foreign Bodies in Trachea," with illustrative cases; "Meniere's Disease," "Frontal Sinusitis." Wade Thrasher, Seventh and Race streets, Cincinnati, secretary and treasurer, eye, ear, nose and throat section.

CONTRIBUTIONS TO THE LEGISLATIVE FUND.

Contributions already acknowledged.....	\$380 00
Jno. G. Albers, Fulda.....	1 00
Seneca county	15 00
E. Melchers, Toledo.....	1 00
J. L. Gahm, Jackson.....	2 00
Hempstead Academy of Medicine.....	25 00
Geo. L. Chapman, Toledo.....	2 00
Peter Donnelley, Toledo.....	1 00
Wm. McClellan, Ashland.....	2 00
O. J. Powell, Ashland.....	1 00
J. S. Burnett, Jeromeville.....	1 00
F. V. Dotterwich, Ashland.....	1 00
W. A. White, Rows.....	1 00
G. P. Reibel, Ashland.....	50
G. B. Fuller, Loudonville.....	1 00
A. L. Sherick, Ashland.....	1 00
D. L. Mohn, Ashland.....	1 00
R. C. Ash, Ashland.....	1 00
L. B. Ash, Ashland.....	1 00
W. F. Emery, Ashland.....	1 00
F. Cowan, Ashland.....	1 00
Highland County Medical Society.....	10 00
B. M. Fowler, Ashtabula county.....	1 00
B. C. Eades, Ashtabula county.....	1 00
D. S. Cassit, Ashtabula county.....	1 00
F. W. Upson, Ashtabula county.....	1 00
O. N. Warner, Ashtabula county.....	1 00
W. H. Leet, Ashtabula county.....	1 00
R. J. Baxter, Ashtabula county.....	1 00
H. Wilson, Ashtabula county.....	1 00
F. E. Tibbitts, Ashtabula county.....	1 00
C. D. Mills, Marysville.....	1 00
Portage county	10 00

The third annual meeting of the Ohio Association of Medical Teachers was held December 27 in the afternoon and evening and was the most successful in the history of the organization. About seventy-five members were present, besides a number of visitors, among them the presidents of several literary colleges of the state. The following program was carried out. Interest in the organization has increased, and its members feel that much good has been accomplished.

1:30 p. m.—Papers: "Should Physiology be Taught in the First Year of the Curriculum, or in the Second Year, or in Both Years?" G. W. Spencer, Cleveland Homœopathic Medical College; discussion, F. H. Lamb, Miami Medical College. "The Laboratory Limitations in Medical Colleges," C. F. Hegner, Miami Medical College; discussion, J. G. Spenser, Cleveland College of Physicians and Surgeons. "The Ruling of the Minnesota State Board Restricting License to Men Who Have Had Two Years of Academic College Work Preceding Their Medical Training; Its Probable Effects on State Boards and Entrance Requirements in Colleges," E. J. Wilson, Ohio State Board Medical Examiners. "The Modern Standard of Medical Education for Practitioners of Medicine and Surgery Demands: (1) An examination for licensure in a larger number of subjects, (2) an examination by more practical methods, (3) more uniformity among the different states," W. J. Means, Starling-Ohio Medical College; discussion, A. Ravogli, S. M. Sherman, E. J. Wilson, H. E. Beebe, Jas. A. Duncan, J. M. Stephenson (Ohio State Board of Medical Examination and Registration), and R. M. Thomas, Eclectic Medical Institute. "What Subjects Can Be Practically Included in 'A Year of Work in Chemistry, Physics and Biology'?" Professor W. F. Mercer, Ohio University. "Clinical Methods in the Education of the Medical Student," J. A. Thompson, Miami Medical College; discussion, H. D. Bishop, Cleveland Homœopathic Medical College. "The Clinical Teaching of Surgery," J. U. Barnhill, Starling-Ohio Medical College; discussion, C. A. Hamann, Medical Department Western Reserve University.

8 p. m., Evening Session.—"What Are the Essential Subjects of General Information That the Physician Should Have to Take His Proper Place in the Community?" President A. T. Perry, Marietta College; discussion, M. J. Lichty, Cleveland College of Physicians and Surgeons; L. E. Siemon, Cleveland Homœopathic Medical College. "The Question of Academic Seniors in Absentia in Professional Schools," A. R. Baker,

Cleveland College of Physicians and Surgeons. "The Necessity of Added Emphasis in the Teaching of Therapeutics and Pharmacology," W. A. Dickey, Toledo Medical College; discussion, J. B. McGee, Cleveland College of Physicians and Surgeons; G. J. Jones, Cleveland Homœopathic Medical College. "The Standardizing of the Medical Curriculum," F. C. Waite, Medical Department Western Reserve University.

CONSTITUTION AND BY-LAWS OF THE OHIO STATE MEDICAL ASSOCIATION

(Revised 1907.)

CONSTITUTION.

ARTICLE I.—NAME OF THE ASSOCIATION.

The name and title of this organization shall be the Ohio State Medical Association.

ARTICLE II.—PURPOSES OF THE ASSOCIATION.

The purpose of this association shall be to federate and bring into one compact organization the entire medical profession of the State of Ohio and to unite with similar associations in other states to form the American Medical Association, with a view to the extension of medical knowledge and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine; so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES.

Component Societies shall consist of those County Medical Societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION.

Section 1. This Association shall consist of Members, Delegates and Guests.

Members.

Sec. 2. Members. The members of this Association shall be the members of the Component County Medical Societies.

Delegates.

Sec. 3. Delegates. Delegates shall be those members who are elected in accordance with this Constitution and By-Laws to represent their respective Component County Societies in the House of Delegates of this Association.

Guests.

Sec. 4. Guests. Any distinguished physician not a resident of this State may become a Guest during any Annual Session upon invitation of the Association or its Council, and shall be accorded the privilege of participating in all the scientific work for that Session.

ARTICLE V.—HOUSE OF DELEGATES.

The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) Delegates elected by the Component County Societies, and (2), ex-officio, the officers of the Association as defined in this Constitution.

ARTICLE VI.—SECTIONS AND DISTRICT SOCIETIES.

The House of Delegates may provide for a division of the scientific work of the Association into appropriate Sections, and for the organization or such Councilor-

District Societies as will promote the best interests of the profession, such societies to be composed exclusively of members of Component County Societies.

ARTICLE VII.—SESSIONS AND MEETINGS.

Section 1. The Association shall hold an Annual Session, during which there shall be held daily not less than two General Meetings, which shall be open to all registered members, delegates and guests.

Sec. 2. The time and place for holding each Annual Session shall be fixed by the House of Delegates.

ARTICLE VIII.—OFFICERS.

Section 1. The officers of this Association shall be a President, four Vice-Presidents, a Secretary, a Treasurer, and ten Councilors.

Term of Office.

Sec. 2. The President and Vice-Presidents shall be elected for a term of one year. The Secretary, Treasurer and Councilors shall be elected for terms of five years each, the Councilors being divided into classes so that two shall be elected each year. All of these officers shall serve until their successors are elected and installed.

Election. Eligibility.

Sec. 3. The officers of this Association shall be elected by the House of Delegates on the afternoon of the second day of the Annual Session, but no Delegate nor Councilor shall be eligible to any office named in the preceding section, except that of Councilor, and no person shall be elected to any such office who is not in attendance upon that Annual Session and who has not been a member of this Association for the previous two years.

ARTICLE IX.—FUNDS AND EXPENSES.

Funds for meeting the expenses of the Association shall be arranged for by the House of Delegates by an equal per capita assessment upon each County Society to be fixed by the House of Delegates, by voluntary contribution, and from the profits of its publications. Funds may be appropriated by the House of Delegates to defray the expenses of the Annual Session, for publication, and for such other purposes as will promote the welfare of the Association and the profession.

ARTICLE X.—REFERENDUM.

The General Meeting of the Association may, by a two-thirds vote, order a general referendum upon any question pending before the House of Delegates, and the House of Delegates may, by a similar vote of its own members, or after a like vote of the General Meeting, submit any such question to the membership of the Association for a final vote; and if the persons voting shall comprise a majority of all the members, a majority of such vote shall determine the question, and be binding upon the House of Delegates.

ARTICLE XI.—THE SEAL.

The Association shall have a common Seal, with power to break, change or renew the same at pleasure.

ARTICLE XII.—AMENDMENTS.

The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates registered at that Annual Session, provided that such amendment shall have been presented in open meeting at the previous Annual Session, and that it shall have been sent officially to each Component County Society at least two months before the session at which final action is to be taken.

BY-LAWS.

CHARTER I.—MEMBERSHIP.

Membership.

Section 1. All members of the Component County Societies shall be privileged to attend all meetings and take part in all of the proceedings of the Annual Sessions, and shall be eligible to any office within the gift of the Association.

Qualification.

Sec. 2. The name of a physician upon the properly certified roster of members, or list of delegates, of a chartered County Society which has paid its annual as-

essment, shall be prima facie evidence of his right to register at the Annual Session in the respective bodies of this Association.

Disability.

Sec. 3. No person who is under sentence of suspension or expulsion from any Component Society of this Association, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take any part in any of its proceedings until such time as he has been relieved of his disability.

Registration.

Sec. 4. Each member in attendance at the Annual Session shall enter his name on the registration book, indicating the Component Society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge, which shall be evidence of his right to all the privileges of membership at that session. No member or delegate shall take part in any of the proceedings of an Annual Session until he has complied with the provisions of this section.

Sec. 5. Each member shall indicate when registering the section in which he wishes to be enrolled.

CHAPTER II.—ANNUAL AND SPECIAL SESSIONS OF THE ASSOCIATION.

Section 1. The Association shall hold an Annual Session at such time and place as has been fixed by the House of Delegates at the preceding Annual Session.

Sec. 2. Special sessions of either the Association or House of Delegates shall be called by the President at his discretion or upon petition of twenty delegates.

CHAPTER III.—SECTIONS.

Section 1. This Association shall be divided into the following sections:

1. General Medicine.
2. General Surgery and Gynecology.
3. Obstetrics and Pediatrics.
4. Dermatology and Genito-Urinary.
5. Eye, Ear, Nose and Throat.

Officers.

Sec. 2. The officers of each section shall consist of Chairman and Secretary. These shall serve for one year, or until their successors are elected and qualified; provided that each section may elect its Secretary to serve a longer time at its discretion.

Election of Officers.

Section 3. The election of officers of the sections shall be the first order of business of the morning meeting of the second day of each annual session. To participate in the election of any section a member must be registered with such section and must have recorded his names and address on the section register book.

Executive Committee.

Section 4. Each section shall have an Executive Committee, which shall consist of the Chairman and two members elected by the section. It shall examine and pass on all papers read before the section and shall endorse for publication only those that are of scientific or of practical value.

Meetings.

Sec. 5. Each section shall hold its first meeting at 10 a. m. of the first day of the annual session, and each subsequent day at 9 a. m. until the program is completed, or as the section may decide; provided, that a section shall hold no meeting that will conflict with a general meeting.

Time of Sending Titles.

Sec. 6. Titles of papers to be presented to the section must be in the hands of the Secretary of the section at least thirty-five days before the first day of the annual session. The title must be accompanied by an abstract of the paper, which shall contain not less than thirty nor more than 150 words, with the author's estimate of the time it will take to read his paper.

Section By-Laws.

Sec. 7. Each section may make by-laws for its own government, provided that they shall in no way conflict with the Constitution and By-Laws of the Ohio State Medical Association.

CHAPTER IV.—GENERAL MEETINGS.

Section 1. The General Meetings shall include all registered Members, Delegates and Guests, who shall have equal rights to participate in the proceedings and discussions; and, except guests, to vote on pending questions. Each General Meeting shall be presided over by the President, or in his absence or disability, or at his request, by one of the Vice-Presidents. Before it, at such time and place as may have been arranged, shall be delivered the annual address of the President and the annual orations, and the entire time of the Session, so far as may be, shall be devoted to papers and discussions relating to scientific medicine.

Functions.

Sec. 2. The General Meeting shall have authority to create committees or commissions for scientific investigations of special interest and importance to the profession and public, and to receive and dispose of reports of the same; but any expense in connection therewith must first be approved by the House of Delegates.

Program.

Sec. 3. Except by special vote, the order of exercises papers and discussions as set forth in the official program shall be followed from day to day until it has been completed.

Time Limit.

Sec. 4. No address or paper before the Association, except those of the President and Orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor except by unanimous consent more than once on any subject.

Papers.

Sec. 5. All papers read before the Association shall be its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published. Every author may have the right to print his paper in medical journals of his own selection, as well as in the Transactions.

CHAPTER V.—HOUSE OF DELEGATES.

House of Delegates.

Section 1. The House of Delegates shall meet annually at the time and place of the Annual Session of the Association, and shall so fix its hours of meeting as not to conflict with the first General Meetings of the Association, or with the meeting held for the address of the President and the annual orations, and so as to give delegates an opportunity to attend the other scientific proceedings and discussions so far as is consistent with their duties. If the business interests of the Association and profession require, it may meet in advance, or remain in session after the final adjournment of the General Meeting.

Ratio of Representation.

Sec. 2. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 100 members, and one for each fraction thereof, but each County Society holding a charter from this Association, which has made its annual report and paid its assessment as provided in this Constitution and By-Laws, shall be entitled to one delegate.

Quorum.

Sec. 3. A majority of the registered delegates shall constitute a quorum, and all of the meetings of the House of Delegates shall be open to members of the Association.

Duties—Scientific.

Sec. 4. It shall, through its officers, through the Council, and otherwise, give diligent attention to and foster the scientific work and spirit of the Association, and shall constantly study and strive to make each Annual Session a stepping-stone to future ones of higher interest.

Material.

Sec. 5. It shall consider and advise as to the material interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public-health legislation, and to diffuse popular information in relation thereto.

Organizing. Fraternal.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be

deemed most efficient for building up and increasing interest in such County Societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse between physicians of the same locality, and shall continue these efforts in every county of the State, until every physician who can be made reputable has been brought under medical influence.

Educational.

Sec. 7. It shall encourage post-graduate work in medical centers, as well as home-study and research, and shall endeavor to have the results of the same utilized and intelligently discussed in the County Societies.

Representative.

Sec. 8. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body in such manner that not more than one-half of the Delegates shall be elected in any one year.

Charters.

Sec. 9. It shall, upon application, provide and issue charters to County Societies organized to conform to the spirit of this Constitution and By-Laws.

Multiple County Societies.

Sec. 10. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies to be designed by hyphenating the names of two or more counties so as to distinguish them from district and other classes of societies, and these societies, when organized and chartered, shall be entitled to all the privileges and representation provided herein for County Societies, until such counties may be organized separately.

Councilor Districts.

Sec. 11. It shall divide the counties of the State into ten Councilor Districts, and, when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, to meet midway between the Annual Sessions of this Association. Members of the chartered county societies, and none others, shall be members of such district societies. Presidents of the county societies of the district shall be the Vice-Presidents of such district societies.

Committees.

Sec. 12. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees may report to the House of Delegates in person, and may participate in the debate on their reports.

Revision.

Sec. 13. It shall approve all memorials and resolutions issued in the name of the Association before the same shall become effective, providing it shall not make void the verdict of a referendum.

Report.

Sec. 14. It shall present a summary of its proceedings to the last general meeting of each annual session, and shall publish the same in the Transactions.

CHAPTER VI.—ELECTION OF OFFICERS.

Elections.

Section 1. All elections shall be by secret ballot, and a majority of the votes cast shall be necessary to elect.

Nominations.

Sec. 2. The House of Delegates on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. It shall be the duty of this committee to consult with the members of the Association and to hold one or more meetings at which the best interests of the Association and of the profession of the State for the ensuing year shall be carefully considered. The committee shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the names of three members for the office of President and of one member for each of the other officers to be filled at that annual session. No two candidates for President shall be named from the same county.

Time.

Sec. 3. The report of the Nominating Committee and the election of officers shall be the first order of business.

ness of the House of Delegates after the reading of the minutes on the afternoon of the second day of meeting of the Annual Session.

Reservation.

Sec. 4. Nothing in this chapter shall be construed to prevent additional nominations being made by members of the House of Delegates.

CHAPTER VII.—DUTIES OF OFFICERS.

President.

Sec. 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver an annual address at such time as may be arranged; shall give a deciding vote in case of a tie; and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and, as far as possible, shall visit by appointment the various sections of the State and assist the Councilors in building up the County Societies, and in making their work more practical and useful.

Vice-Presidents.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the death, resignation or removal of the President, the Vice-Presidents shall succeed to the presidency in the order of their election.

Treasurer.

Sec. 3. The Treasurer shall give bond for the trust reposed in him, whenever the House of Delegates shall deem it requisite. He shall demand and receive all funds due the Association, together with bequests and donations. He shall, under the direction of the House of Delegates, sell or lease any estate belonging to the Association, and execute the necessary papers; and shall, in general, subject to such direction, have the care and management of the fiscal affairs of the Association. He shall pay money out of the Treasury only upon a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands. He shall charge upon his books the assessments against each Component County Society at the end of the fiscal year; he shall collect and make proper credits for the same, and perform such other duties as may be assigned to him.

Secretary.

Sec. 4. The Secretary shall prepare and issue the programs for and attend all general meetings of the Association and of the House of Delegates, and he shall keep minutes of their respective proceedings in separate record books. He shall be custodian of all record books and papers belonging to the association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members and delegates at the Annual Sessions. He shall keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his County Society, and upon request shall transmit a copy of this list to the American Medical Association for publication. In so far as it is in his power he shall use the printed matter, correspondence and influence of his office to aid the Councilors in the organization and improvement of the County Societies, and in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall act as Chairman of the Committee on Publication. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

In order that the Secretary may be enabled to give that amount of time to his duties which will permit of his becoming proficient, it is desirable that he should receive some compensation. The amount of his salary shall be fixed by the House of Delegates.

CHAPTER VIII.—COUNCIL.

Council.

Section 1. The Council shall hold daily meetings during the Annual Session of the Association and at such

other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session of the Association for reorganization and for the outlining of work for the ensuing year. At this meeting it shall elect a Chairman and Secretary, and it shall keep a permanent record of its proceedings. It shall, through its Chairman, make an annual report to the House of Delegates at such time as may be provided.

Duties—Individual.

Sec. 2. Each Councilor shall be organizer, peace-maker and censor for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the condition of the profession, and for improving and increasing the zeal of the County Societies and their members. He shall make an annual report of his doings, and of the condition of the profession of each county in his district, to each annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates upon a proper itemized statement, but this shall not be construed to include his expense in attending the Annual Session of the Association.

Collective.

Sec. 3. Collectively the Council shall be the Board of Censors of the Association. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the Component Societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the Central Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or of a County Society, upon which an appeal is taken from the decision of an individual Councilor. Its decision in all such cases shall be final.

Powers.

Sec. 4. The Council shall have the right to communicate the views of the profession and of the Association in regard to health, sanitation and other important matters to the public and to the lay press. Such communications shall be officially signed by the Chairman and Secretary of the Council, as such.

Program.

Sec. 5. The Council shall determine the character and scope of the scientific proceedings of the Association for each session, subject to the instruction of the House of Delegates, or the Association, or the provisions of the Constitution and By-Laws. Thirty days previous to each annual session, it shall prepare and issue a program, announcing the order in which papers, discussions and other business shall be presented, which shall be adhered to by the Association as nearly as practicable.

CHAPTER IX.—COMMITTEES.

Standing Committees.

Section 1. The Standing Committees shall be as follows:

- A Committee on Public Policy and Legislation.
- A Committee on Publication.
- A Committee on Medical Education.
- A Central Secretaries Committee.
- A Committee on Nominations.
- A Member of the National Legislative Council.

A Committee on Arrangements, and such other committees as may be necessary. Such committees shall be elected by the House of Delegates, unless otherwise provided.

Public Policy and Legislation.

Sec. 2. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary. There shall be a joint meeting of this, the State Committee and the Auxiliary Committee held in Columbus, annually, or biannually, at the call of the Chairman or three members of the State Committee. As many more meetings, and if desirable in other cities, may be held as may be determined by the State Committee. The Chairman of the State Committee, and in his absence the President ex-officio, shall act as Chairman of the joint committee meetings. A Secretary shall be elected to serve two years or until his successor is qualified and installed. Under the direction of the State Committee, the joint committee shall represent the Association in securing and enforcing legislation in the

interest of public health and of scientific medicine. It shall be the duty of the State and Auxiliary Committees to keep in touch with professional and public opinion and secure the enactment and enforcement of laws to promote the general welfare of the public and the profession. They may elect to have a hearing before the Association at such time as may be arranged during the annual session, or any matter they may deem proper.

Publication.

Sec. 3. The Committee on Publication shall consist of three members, of which the Secretary shall be Chairman, and shall have referred to it all reports on scientific subjects, and all scientific papers and discussions heard before the Association. It shall be empowered to curtail or abstract papers and discussions, and any paper referred to it which may not be suitable for publication in the Transactions may be returned to the author. The committee shall have authority to arrange for the publication and distribution of the Transactions after receiving competitive bids, and shall use diligence in getting them into the hands of members. All papers read before the Association shall be the property of the Association.

Central Secretaries' Committee.

Sec. 4. The Central Secretaries' Committee shall consist of three secretaries and ex-officio the President and Secretary of the State Association. The committee shall be appointed by the President. It shall be the duty of the committee to devise ways and means of assisting and stimulating the work of the county secretaries, to assist or suggest in the arrangement of programs for county meetings, to formulate and supply or suggest letters or other means of assisting the county secretaries in increasing the membership of their respective societies.

Medical Education.

Sec. 5. A standing committee of three shall be appointed by the President, to co-operate with the National Council on Medical Affairs within our State.

Nomination.

Sec. 6. The Committee on Nominations shall be appointed and perform its duties in accordance with the provisions of Chapter V, Section 2, of these By-Laws.

National Legislative Council.

Sec. 7. The Member of the National Legislative Council shall represent the Association at the annual conference of the National Legislative Council of the American Medical Association, and shall discharge such duties as may be prescribed by the Constitution and By-Laws of the American Medical Association.

Arrangements.

Sec. 8. The Committee of Arrangements shall consist of the Component Society in the territory in which the Annual Session is to be held. It shall, by committees of its own selection, provide suitable accommodations for the meeting places of the Association and of the House of Delegates, and of their respective committees, and shall have general charge of all the arrangements. Its Chairman shall report an outline of the arrangements to the Secretary for publication in the program, and shall make additional announcements during the session as occasion may require.

CHAPTER X.—ASSESSMENTS AND EXPENDITURES.

Annual Dues.

Section 1. An assessment of one dollar per capita on the membership of the Component Societies is hereby made the annual dues of this Association. The Secretary of each County Society will forward its assessment together with its roster of all officers and members, list of delegates, and list of non-affiliated physicians of the county to the Secretary of this Association thirty days in advance of each Annual Session.

Penalty for Failure to Remit.

Sec. 2. Any County Society which fails to pay its assessment, or make the reports required, on or before the date above stated, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association or of the House of Delegates until such requirements have been met.

Appropriations.

Sec. 3. All motions or resolutions appropriating money shall specify a definite amount, or so much

thereof as may be necessary for the purpose indicated, and must be approved by the Council and House of Delegates on a call of the ayes and noes.

CHAPTER XI.—ETHICAL PRINCIPLES.

Ethics.

The ethical principles governing the members of the American Medical Association shall govern the conduct of members of this Association in their relations to each other and to the public.

CHAPTER XII.—RULES OF ORDER.

Rules of Order.

The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, unless otherwise determined by a vote of its respective bodies.

CHAPTER XIII.—COUNTY SOCIETIES.

County Societies—Affiliation.

Section 1. All County Societies now in affiliation with the State Association or those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall, upon application to the House of Delegates, receive a charter from and become a component part of this Association.

Organization.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no Component Society exists, and charters shall be issued thereto.

Charters.

Sec. 3. Charters shall be issued only upon approval of the House of Delegates and shall be signed by the President and Secretary of this Association. The House of Delegates shall have authority to revoke the charter of any Component County Society whose actions are in conflict with this Constitution and By-Laws.

One Society in One County.

Sec. 4. Only one component medical society shall be chartered in any county. Where more than one county society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the district if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken.

Qualification for Membership.

Sec. 5. Each County Society shall judge of the qualification of its own members, but as such societies are the only portals to this Association and to the American Medical Association, every reputable and legally qualified physician who does not practice, nor profess to practice, Sectarian medicine, and who is not affiliated with any organization, which aims to foster an exclusive dogma in therapeutics, shall be eligible to membership. Before a charter is issued to any County Society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Appeal.

Sec. 6. Any physician who may feel aggrieved by the action of the society of his county in refusing him membership, or in suspending or expelling him, shall have the right of appeal to the Council and the House of Delegates.

Hearings.

Sec. 7. In hearing appeals the Council may admit oral or written evidence as in its judgments will best and most fairly present the facts, but in case of every appeal, both as a Board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Removals.

Sec. 8. When a member in good standing in a Component Society moves to another county in this State, his name, upon request, shall be transferred without cost to the roster of the County Society into whose jurisdiction he moves.

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides.

Functions and Duties.

Sec. 10. Each County Society shall have general direction of the affairs of the profession in the county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Work.

Sec. 11. Frequent meetings shall be encouraged, and the most attractive programs arranged that are possible. The younger members shall be especially encouraged to do post-graduate and original-research work, and to give the Society the first benefit of such labors. Official position and other preferments shall be unstintingly given to such members.

Delegates.

Sec. 12. At some meeting in advance of the annual session of this Association each County Society shall elect a delegate or delegates to represent it in the House of Delegates of this Association in the proportion of one delegate to each one hundred members, or fraction thereof, and the Secretary of the Society shall send a list of such delegates to the Secretary of this Association, at least ten days before the Annual Session.

List of Physicians in County.

Sec. 13. The Secretary of each County Society shall keep a roster of its members and a list of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. He shall send ten copies of the program of each county meeting to his District Councilor, and one copy to the State Secretary. He shall furnish an official report containing such information, upon blanks supplied him for the purpose, to the Secretary of this Association, thirty days in advance of each Annual Session, and at the same time that the dues accruing from the annual assessment are sent in. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Auxiliary Committee.

Sec. 14. At the annual meeting for the election of officers, each component society shall appoint one of its members as a member of the Auxiliary Committee on Public Policy and Legislation, and the Secretary shall send his name and address at once to the Secretary of the State Medical Association. The Committee on Public Policy and Legislation of the State Medical Association shall formulate the duties of this Auxiliary Committee and supply each member with a printed copy.

CHAPTER XIV.—AMENDMENTS.

Amendments.

These By-Laws may be amended at any Annual Session by a majority vote of all the delegates present at that session, after the amendment has been laid upon the table for one day.

MARRIAGES

Elmer E. Kimmel, Dayton, to Miss Nellie Steinbrecher, of Cincinnati, December 18.

DEATHS

W. E. Hoover, Miami Medical College, '71, died at his home in Dayton December 5, aged sixty-nine.

C. R. Fowler, University of Wooster, '79, died at his home in Columbus November 5 from apoplexy, aged sixty-two.

J. A. Oliver, Niagara University, '96, died at Steubenville December 1 from erysipelas, aged fifty-five.

O. D. Norton, Berkshire Medical College, '45, died at Cincinnati November 28 from senility, aged eighty-six.

J. K. Matthews died at his home in Ottawa after a long illness, aged eighty-three.

E. H. Gee, Rush Medical College, '89, was accidentally killed at Zanesville January 8.

R. C. Matthews, Jefferson Medical College, '81, died at his home in Columbus December 24 from typhoid fever, aged forty-nine.

D. H. Gregory, Cleveland Homœopathic Medical College, '59, died suddenly December 31 at Newark, aged seventy-one.

Clarence Eugene Stroud, of Sandusky, O., died January 2. He was injured by the explosion of a vulcanizing machine on December 13 and died from sepsis. He was a graduate of the University of Michigan in medicine and dentistry and had practiced in Sandusky a great many years.

WEEKLY SUMMER VACATIONS FOR PHYSICIANS.

We believe we heard last summer of a plan, adopted in some—perhaps only one—villages in the Northwest whereby only one physician was on duty one day in the week, Saturday or Sunday. The plan seemed to us an admirable one, not only for giving the physicians a rest, but for bringing them into closer, more intimate, and more friendly relations.

The five dentists of Albert Lea have taken up the plan, and during the summer only one dentist will keep "open shop" Saturday afternoons, the other four will play.

Why cannot physicians do the same? Is human nature—even among physicians—made of such poor stuff that the plan is not feasible? Certainly, there is nothing in other conditions that seriously militates against it. Physicians need the rest, and we venture to say if the plan of a Sunday off for the whole tribe, except one, be adopted for the year round the public health will not suffer, no physician will be a financial loser, and some good and unlooked-for things will happen.

Where is the village whose physicians have the courage to try it, or are now doing it?—Editorial Jour. Minnesota State Med. Association.

The Ohio State Medical Journal

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No. 3

ORIGINAL ARTICLES

SYMPOSIUM ON DISEASES OF STOMACH

(Continued.)

TREATMENT OF GASTRIC HYPO-ACIDITIES.

M. J. LICHTY, M. D.,
Cleveland.

Before discussing the treatment of gastric hypo-acidities it would be well to make a few statements about the frequency of this disease as well as the pathological conditions associated with it. In looking over the records of more than three hundred cases of dyspepsia seen in private practice, in which the symptoms and the gastric findings were carefully studied, I find over one hundred cases of hypoacidity of the gastric contents. I have selected, however, an even hundred cases upon which to base the following discussion. While it must be admitted that there is no sharp line in gastric analyses at which one may say there is a normal acidity or secretion, everything above being a hyper-secretion, and vice versa everything beneath a hypo-secretion, I doubt if there would be much objection to consider as I have done in these cases, a normal gastric secretion as ranging somewhere between forty and sixty expressed in deci-normal sodium hydroxide solution. Influenced considerably by the opinion of others I have come to consider a gastric acidity of more than sixty as a hyperacidity and to call an acidity less than forty a hypoacidity. The one hundred cases here to be reported all have an acidity ranging from forty down to a neutral or alkaline condition. The meal given for the test was usually the Ewald breakfast of 10 ozs. of water and a roll, or two small slices of bread. The meal was invariably removed in the morning about one hour after ingestion. It has been the experience of quite a few observers that the gastric findings in the same individual are not at all constant, that is, that the patient can have a normal acidity one time, a hyperacidity soon afterwards, and perhaps a hypoacidity still later. My experience has

been quite the contrary. There is of course some variation in the repeated analyses, but this variation is usually not very great when the analyses are made under the same circumstances, and with the same meal. Indeed it has been my painful experience to find that gastric secretion is not even greatly influenced or varied by internal medication. In proof of these statements I shall quote the findings in a few cases. Mrs. B. had, in December, 1905, a total acidity of 3 and an absence of free HCl. In July, 1906, after six months' treatment with great benefit to the patient's health the acidity was 10 and free HCl still absent. Mr. N. had a gastric secretion which was alkaline in June, 1905; two weeks later there was a total acidity of 4. Most cases with a hyperacidity showed the same constancy. Expressing the total acidity and free HCl in deci-normal sodium hydroxide numericals, I find Mr. W. had a free HCl of 21 and a total acidity of 95 in March, 1902. October 20, 1902, the secretions showed free HCl 45 and total acidity 86. Three days later the test breakfast gave practically the same figures, free HCl 45 and total acidity 87. Mr. G. had a free HCl of 65 and total acidity of 106 in May, 1906; after three months' treatment the free HCl in four consecutive mornings ran from 35 to 50 and total acidity from 65 to 75. While it has been noticeable in the acidity of this number of cases that not only were the gastric secretions more or less constant and often greatly uninfluenced by medicinal treatment, it was also strikingly noticeable that in these cases one frequently finds and has to treat other associated pathological conditions. In other words, the hypoacidity is most frequently not the only abnormal condition.

Of the 100 cases, 77 had a total acidity between 11 and 40 inclusive, and the remaining 23 cases had a secretion which showed total acidity of 10 or less and the complete absence of free HCl as well as an absence of all other secretions; pepsin, rennet, and rennet zymogen having been

absent in the 23 cases every time when carefully tested; which makes it allowable, it seems to me, to call these twenty-three cases cases of achylia gastrica.

Taking the whole number of cases I find associated with the hypoacidities the following conditions: There was considerably too much dilatation of the stomach in 33 cases, simple ptosis without dilatation in 7. There was a right floating kidney in 29 cases, left floating kidney in 11. Tuberculosis was present in 9. Pernicious anemia was found in 6 cases, nephritis in 6, ulcer of the stomach in 5, gall stones in 4, locomotor ataxia in 2, and cancer of the stomach in 2. There were other cases with epilepsy, diabetes, neuritis, mucous colitis, and appendicitis. Goiter and migraine were common, nervous prostration was frequent with all sorts of neuroses. It is worthy of note that among the 23 cases of achylia gastrica dilatation of the stomach was found 7 times, tuberculosis 4 times, pernicious anemia 4 times, nephritis 2 times, and ulcer of the stomach 2 times. Both of the cases of ulcer of the stomach had stenosis of the pylorus and required operation. One of these two had also an incipient pulmonary tuberculosis. The stomach was hourglass in shape (a condition diagnosed antemortem). Failure of gastric drainage with a great hypoacidity caused great malnutrition, and the patient preferred the risk of operation to that of starvation. At operation an hourglass stomach was found, constriction having taken place at the seat of an old ulcer, around which were many adhesions, and of which there was no former history. The patient, however, died three days after operation from shock. The other ulcer case with achylia had a bleeding ulcer. Occult blood was found in the gastric contents and in the stools. There was stenosis of the pylorus and dilation of the stomach two to three inches below the umbilicus. Both kidneys were floating. There was a palpable liver and spleen, and there was considerable anemia. The patient has had great relief through a gastro-enterostomy. The ulcer was found bleeding at the time of operation. A third of the total number of five cases of gastric ulcer with hypoacidity also required an operation. Here there had been no dilatation, but there were found dense adhesions between the diaphragm and the greater curvature of the stomach. The surgeon diagnosed at the time of operation pre-existing ulcer with perforation. The patient was benefited but little if any by the operations since the adhesions were too dense to be relieved. Operation in this case was very serious, the patient nearly losing his life on account of shock

and post-operative pneumonia. Operation, however, had not been advised without due caution, inasmuch as malignancy, tubercular peritonitis, and gall stones were suspected before the operation; but in spite of the fact that operation was serious and perhaps of little benefit, it cleared up the diagnosis. The patient is now quite convalescent under medical treatment with a diet of milk and eggs, bread and butter. The other two cases of gastric ulcer had such striking symptoms that they need not be discussed. The five ulcer cases are significant, inasmuch as ulcer of the stomach is usually supposed to be associated with hyperacidity and hyperchlorhydria. I believe it was Ewald who first denied that hyperchlorhydria was the rule in gastric ulcer.

Only a few words need be given here about the symptoms of patients who have a hypoacidity. Experience teaches me that these patients seldom complain much about their stomach. Indeed, they complain about everything else, such as headaches, weakness, loss of strength, dizziness, lack of appetite, cardiac neuroses, disturbed sleep, frequently diarrhoea, and sometimes constipation; quite in contrast is this with patients having a hyperacidity who always complain about something wrong in the stomach, which they call indigestion. Cases of hyperacidity are less likely to show malnutrition; indeed they often are quite plethoric. These statements are quite in accord with other observers. Stockton (1) lays stress upon this peculiarity of stomach cases. I have seen patients with normal or excessive gastric secretions who ought to be able to digest all kinds of plain food complain of everything, while other patients with hypoacidity and even achylia gastrica and gastric atrophy complain of little or nothing about the stomach. This brings me, therefore, to the conclusion that few or no dyspepsias can be treated intelligently without a gastric analysis, without which the diagnosis is obscure. Gastric analyses are not difficult, and if resorted to more frequently would help to clear up many obscure conditions.

Before referring to the treatment of hypoacidities, let me remind you that many of the cases do not need much treatment for the stomach alone. Neither can the patient as a rule be well treated without the recognition of the associated pathological conditions so frequently seen, as has been noticed by the figures just quoted. I have already hinted at the fact that long-continued careful treatment even fails to modify the hypoacidity, but if intelligently carried out it most frequently benefits the patient. It must not be forgotten either that sometimes nature is very

kind to these patients. Einhorn has reported a case of achylia gastrica in which without treatment the patient returned to normal after five years. Murdock (2) also reports a case of achylia treated ineffectually for one year, and two years later the patient returned for another examination, having gone without treatment, and was found practically normal.

The very term meaning a deficiency of acid, at once suggests the use of acid. This deficiency is usually supposed to be met by the administration of dilute HCl. I greatly regret in the treatment of this condition that HCl has been a very disappointing and unsatisfactory remedy in my hands; so much so that I now seldom use it, and then with great caution in small doses. Many patients can not endure its use. It burns them they say. Richard Chase (3), in discussing the use of HCl, and after reviewing the literature on the subject in diseases of the stomach and following operations of such cases, claims that the sum and substance of experiments and consideration of the literature yields but little in favor of the use of large doses of HCl and some evidence that such employment of the acid may be harmful. On the other hand most writers advocate the use of small doses of HCl. Another observer, Woldert (4), says out of the numerous cases treated in which free HCl was totally absent, he could not recall a single instance in which the administration of HCl in any way affected the percentage of free HCl one hour after a test meal. Pawlow (5) has shown by experiments on animals that this ferment of gastric juices is inhibited by an excess of HCl; whereas, it is increased by the free use of water.

Inasmuch then as HCl is often so ineffectual, how may we treat this condition? I reply, treat the patient as much if not more than the hypo-acidity. Of greatest need and urgency is it to improve the patient's nutrition. This is often a tedious and difficult matter, inasmuch as it must be done through a defective organ, and often with a restless and unsatisfactory patient. Let me state right here that this treatment is frequently a failure in an unintelligent, inconsiderate, and poverty stricken patient. To increase the nutrition it requires good food and plenty of it, properly prepared, proper exercise, moderate amount of rest, some medicines, and much wholesome advice, especially about the details of the diet. It is often impossible to accomplish this in neurasthenic patients without complete and sometimes prolonged rest in bed with the aid of an efficient trained or experienced nurse who is tactful in everything, especially to administer an excessive

quantity of food. A trained nurse without end-
less tact, especially in the culinary art will fail in nursing these cases, though she might be wonderfully efficient in nursing acute infections. This list of cases includes many in which the health and strength were greatly improved and in whom many of the symptoms disappeared after the rest cure. When the rest cure is unnecessary or impossible, then the patient can be advised to make a business of getting well, paying strict attention to diet and medicine.

It is in this class of cases that I have used successfully the bitter tonics such as *nux vomica*, *condurango*, small doses of quinine, gentian, and quassia, sometimes combined with small doses of HCl. A mild aperient is frequently necessary, though constipation is not as frequent in cases of hypoacidity as in the opposite extreme. Some patients seem to get along without acid just as well. Where there is some neurasthenia and where there are neuroses, the bromides are occasionally most effectual. A case which I should like to report with more detail will serve to illustrate. It was a case of persistent achylia with malnutrition and mucous colitis, with often ten to fifteen bowel movements a day. The bitter tonics, HCl, bismuth, and colon lavage, were all stubbornly uneffectual. After the use of fair doses of bromides with small doses of bismuth and *asa fetida* the patient began to improve at once. The mucous colitis disappeared, lenteric stools were not noticed any more, and the weight increased thirty pounds in one year, which weight the patient maintains with good health. Einhorn (6) speaks of the advantage of bitter tonics and the cautious use of a finely divided meat diet, as well as the use of intragastric faradization. My experience in the treatment of quite a few of these cases confirms that opinion. I have seen excellent results from the use of electricity, administered either in bed or in the office and either to the abdominal muscles and back, or intragastric if the patient is willing to swallow the electrode which, as a rule, is not difficult. Just how much advantage electricity has it is difficult to say, perhaps it is of value along the line of suggestive treatment. Whether this is true or not I am convinced that it is an aid. Fenwick (7) claims that lavage and electricity are of use only in strengthening the muscles of the abdomen, and seldom produce any direct effect on the stomach. I have, however, seen the appetite return and the tone of the gastric muscle improve with intragastric electricity. In only one patient (one of hyperacidity) with much emaciation, thin abdominal walls, and a greatly dilated stomach, was

it possible to see the gastric contractions when using electricity. Here the intra-gastric electrode was used. The stomach was partially filled with water, and when a mild current was turned on one could see strong peristaltic waves through the abdominal muscle. Patients have frequently told me that the stomach feels good and warm after the use of electricity. This measure is, however, often unnecessary and at other times not possible. Lavage of the stomach is seldom used in cases of hypoacidity unless there be poor motor power. General massage is a very helpful agency. Diet is all important, but can not be discussed here further than to say that a mixed diet is most essential. This diet includes some meat prepared in finely divided form to be easily masticated, also the starches, much bread and butter, some vegetables with rich milk or cream, which are seldom intolerable in spite of an often deficient amount of rennet. Fruits are often poorly borne. They do not supply the required acid and they yield but little nourishment, frequently giving rise to pain and burning. All food must be carefully prepared, and little ought to be eaten raw or cold, and it must be carefully chewed. This is altogether the experience of Stockton (8). He says it is advisable to require such patients to take a mixed diet and not to confine themselves to one class of food, as for instance animal proteids, milk, and carbo hydrates. Boardman Reed (9) cautions against the dictum to "eat everything." Some of the achylas and a goodly number of simple hypoacidities are distressed by what they term "acid fermentation" in the stomach. This is nearly always aggravated by the use of HCl. Surprisingly as it may seem in spite of the acid deficiency these patients often get relief by the use of alkalies and pancreatin, also advised by Reed (10).

To sum it all up though, the greatest need in cases of hypoacidity is to restore and if possible exceed the former nutrition. A review of Bettman's Monograph (11), in which he quotes from many of the best authors here and abroad, shows how firmly all are convinced of the importance of increased nutrition, no matter how it is acquired.

The treatment of the associated conditions must not be overlooked, but does not enter into the scope of this paper.

A brief report of a few cases may be in order by way of illustration.

Case 1. Mrs. S., æt. 60, was first seen three years ago. She was very neurotic. There was general splanchnoptosis; gastric acidity was 20 and HCl was absent. There was marked anor-

exia with malnutrition. Rest in bed for six weeks with forced food, use of electricity and massage and bitter tonics were the agents used in restoring twenty to twenty-five pounds in weight and a greatly increased strength, which the patient has maintained very well ever since. The rest treatment was given at home and the nurse was a tactful member of the family.

Case 2. Miss O., æt. 26, had a total acidity of 38. There was general splanchnoptosis with ecstasy of the stomach. Exophthalmic goiter was present and there was neurasthenia with great weakness. She was put to bed for treatment in May, 1906. During a four weeks' period of absolute rest, massage and electricity were administered and proper food was given in large quantities by a well-trained nurse. The weight was increased only ten pounds, but there was a greater increase in strength. The patient has been in better health since, though she is paying more attention to diet than she did a few years ago.

Case 3. Mr. C., æt. 45, was first seen in May, 1907. He has never been robust and has never weighed over 145, is tall and slender. He complained of headaches, insomnia, malaise, anorexia and constipation. His gastric analysis showed a total acidity of 20, with an absence of free and combined HCl. With the simple use of bitter tonics and a carefully-selected diet in abundance he has gained eight pounds of weight, now weighing 160, and most of his symptoms have disappeared.

Case 4. Mrs. H., æt. 45, was first seen four years ago. She had a dyspepsia for years with anorexia, distress after meals and loss of weight to 102 pounds. She had been asthmatic for years, and until two years ago had albumin and casts in the urine most constantly. The total acidity of gastric contents was 30, with only a trace of free HCl. There was a high blood pressure. With the use of alkalies and pancreatin, bitter tonics and a carefully-selected diet of starches in abundance, together with great care in clothing, hygiene and hydrotherapy, her weight was increased from 102 to 133 pounds, and she is in very fair health. The urine was normal when last examined a few months ago, and the patient's recovery is due to good care and proper treatment without even rest in bed.

Case 5. Mrs. L., æt. 45, came under observation three years ago. She had a dilatation of the stomach and a right floating kidney. She has five daughters, three of whom have floating kidneys. She complained only of headache, insomnia, palpitation, distress in the chest and abdomen. Her weight was 95, the gastric acidity 33, and free

HCl 6. With a modified rest cure and the use of bitter tonics and electricity and a more ample diet of plain food she has increased her weight to 111 pounds, and is altogether in a greatly improved state of health.

Case 6. Mrs. R., æt. 57, was put under treatment in July, 1904. She had a group of nervous symptoms, anorexia, nausea, pyrosis, occasional vomiting of a "phlegm," and "pressure over the nerves." She had a greatly dilated stomach, three inches below the umbilicus. There was a right floating kidney and some tenderness over the pylorus and duodenum. The total acidity was 40, but there was no blood in the stomach contents nor any evidence of poor motor power and delayed absorption. Her weight was 91. A treatment of six weeks in bed with forced food, bitter tonics, massage and electricity was carefully carried out with much improvement. After the patient left her bed she was required to wear clothes suspended from the shoulder, and an abdominal belt. In less than six months she weighed 115 pounds (more than she had weighed for years before, and she was greatly improved in health.

The brief report given of these six cases is more or less typical of the improvement which may be brought about for some of these patients under careful treatment. Many other cases in this list, with equally favorable results, might be detailed. The report, however, gives no suggestion of the trying circumstances and the perplexing conditions which a patient often puts before the physician. Furthermore one is not always successful in the treatment of these patients. Many of them are unwilling to make any sacrifices whatever, and occasionally one fails to accomplish anything even after the most painstaking effort and under the best surroundings.

The most trying cases are those who are most neurotic or hysterical. A report of one's failures might be equally interesting, but they should not influence one in preventing him from doing the best for his patients.

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1803 E. 82d St.

DISCUSSION.

(Discussion of Symposium on Diseases of Stomach.)

Dr. Rosewater, Cleveland: The papers on this subject are certainly well presented and they nicely represent the consensus of opinion up to date. I am glad to see Dr. Crile and Dr. Dunham take the view that the internists should take care of a surgical case from the time of the operation. I think in the days when that was not done I had more failures, and I do not know of a single one since. Where the internist has taken care of that part of the work the results are very much better. The surgeon has his own work to do and is less able to take care of the matters of diet than the internist.

Dr. Lichty reports quite a number of cases of pernicious anemia occurring in his cases of subacidity. My own experience covering a period of ten years' special attention to this class of work, does not seem to bear out the view that it occurs so frequently. Out of several thousand cases of so-called stomach trouble, I have treated over five hundred with subacidity, yet among all these have not seen one of true pernicious anemia, all under proper treatment recovering from what I regarded as secondary anemias.

My work, however, is in private practice, whereas perhaps one sees more of these cases of pernicious anemia, as well as of carcinoma, in hospital work than I find in my private practice. Both Drs. Dunham and Lichty mention achylia gastrica, if I remember rightly without reference to occurrence of pain. There is a great deal sometimes even simulating gall stone colic. I had one case which fully a dozen of our best men in Cleveland diagnosed as gall stone colic. The case had been operated ten years before and a large number of gall stones removed. A year after operation attacks began again, somewhat different from the old pain, but growing more and more frequent. My first impression was that it was a gastralgia, and the patient urgently requested morphine for relief. I warned her that it might make her sick, and added 1/60 gr. apomorphia to the morphia hypodermic; she promptly vomited about a quart of undigested food, which proved to be due to achylia gastrica. Under strict diet she has been free from attacks for over three years, and weighs thirty pounds more than before. Boas, I believe, has reported gastralgia occurring in cases of achylia gastrica, but does not call attention to their similarity to gall stone colic. I have had quite a number of such cases.

Dr. Lichty said that a large number of pernicious anemia occurred from sub-acidity. I have seen many cases—I presume 4500 cases in the past ten years, but I have never seen one case of pernicious anemia. The same seems to be true with reference to carcinoma. I think perhaps one reason is that they are hospital cases, and my work is more private work.

Dr. Sutton, Zanesville: I was much interested in all the papers, but more particularly in the first paper of the afternoon by Dr. Crile. I am disappointed that our 'Little Napoleon' was not able to give us more encouragement to do surgery of the stomach. His report does not indicate that very much has been positively accomplished yet, and what he said sounded much like carefully prepared, hard, cold facts. Of course, a great deal could not be expected from operating where malignancy exists, and perhaps the successful cases might have been as well unoperated. There is no doubt but what we have been misled in the past by a few men making flattering reports of successful operations on cases better not operated. I have had a few very good examples only recently, but will only quote one illustration.

Some three months ago, a man about fifty years of age was assisted by two friends into my office. He came from a neighboring county. I looked him over carefully and made up my mind he was suffering from ulceration of the duodenum, and his state of prostration was so great that to operate would be to make myself his executioner. I sent him home. He had not been able to retain nourishment for several weeks, and I expected that he would soon starve to death. But he is quite comfortable today and seemingly entirely recovered.

The doctors in some of their papers referred to the cases that were overlooked. It is my opinion that those overlooked are the fortunates ones, until something better can be given us than has been up to the present time.

Dr. Sawyer, Cleveland: I was unfortunate not to be here to hear the first part of this symposium. The last two papers have interested me exceedingly. I am much interested in the question of the acute dilatation of the stomach. Many cases are not noticed, and it is a good service to the community to call attention to the likelihood of its existing more frequently than we have given it credit for in the past.

Also I am interested in the statement that in seemingly moribund conditions the stomach tube should be passed. I have been very sure these cases do not collapse from the passage of the stomach tube, and commonly it is a great relief.

Concerning this greenish material of which the doctor spoke, we so frequently hear this characterized as bile, and if there is any confounding and confounded mistake it is to call this bile. It is usually hyperchlorhydric in character; it is very rare that bile pigmentation is found in these cases.

The thirst is most extreme. It is a most striking physiological phenomenon. Washing the stomach with a strongly alkaline solution—baking soda is almost always at hand in the house—gives almost instant relief from this thirst. It contributes very much to the relief of the nervous manifestations.

I have seen after typhoid fever the eating of meat allowed, so that the solid should not be swallowed, and yet with the most careful patients

a piece of meat will sometimes be swallowed and dilatation of the stomach has followed. It is bad practice to give it to patients in these conditions. Something may come of it.

Returning again to the question of thirst, the physiology of thirst is from a condensation of the blood. It is relieved by this direct stomach treatment in the majority of cases.

I am not one who believes that surgery of the stomach should be performed on an offhand diagnosis of gastrectasis. I am aware it is done and frequently recommended. I am aware that in a good many cases it should be done, but I think it ought to be tried out first. I think the case ought to have the benefit of rest, lavage, careful diet, rest in hospital; also the use of oil is recommended by Cohnheim. I have cases of seven or eight years' standing, in whom if I ever saw pyloric stenosis developed it was in these cases. Quarts of material retained, and I know of these patients who are now in comfort and health, and I believe due largely to the use of oil. One case in which I found pyloric obstruction and recommended operation, and he had it done; and right beside him I had two other cases who recovered under the treatment with oil and now are in comparatively good condition, and I feel that benefit was conferred in these cases. It is worth trying, while it will not work in all.

I should not wait quite as long as Dr. Dunham. I am not quite as patient perhaps, but if in four weeks of steady work I cannot get considerable relief, as shown by careful test meals, etc., and the patient feeling better, they should have operative interference. Gastro-enterostomy does good work and should be recommended and insisted upon, and the patient discharged from treatment if he will not take it. We have got to stand for the doing of the thing we think is right.

As to cancer, the cure of gastric ulcer is most important, as it is the most immediate predisposing cause of cancer of the stomach. I have had two or three cases in which taking them to the hospital for what I thought was chronic flat ulcer, and the conditions no wise suggestive of cancer, and have seen a rapid development of carcinomatous degeneration.

I believe in the operation for the excision. I believe we should do more operations.

Dr. Hall, Cincinnati: I want to endorse the essayists. I think the paper of Dr. Crile was a compilation of his convictions, of cold, hard facts, for which we should feel very grateful to him and encourage him in the work. He tells of the failures as well as the successes, which we appreciate always in work of this kind.

The paper on acute dilatation was a very admirable one. It brings to view facts often overlooked.

I think the greatest gains to be made for the patient in many disturbed conditions in post-operative work is looking carefully after the diet and the condition of the stomach. Many will die because this is overlooked. Also the introduction of the stomach tube will save many

patients. A little cocaine sprayed on the throat and the stomach tube introduced the picture is soon changed, often where otherwise the patient would die.

I do not agree with one of the speakers that we are not going to get any benefit from surgery of the stomach. You can not promise anything from internal medicine. We are doing something in cancer of the stomach that never was done before. We do more than merely diagnose the condition, and we at least let them die more comfortably. We will have more cases of four years added to their lives when early diagnosis is made. I want to encourage this work of Dr. Crile's and every man's working diligently along this line. If we could follow out the suggestion made in regard to differentiating which are to be operated, there would be much to be gained in surgery. We should be encouraged rather than discouraged. We are learning not to operate for hemorrhage and ulcer; but we are learning to operate on a case that had ulcer years ago and now has stenosis. These cases get benefit, and before another three years you will have a longer list of resections and recovery, and after a few years there will be a long list of five years after operation before recurrence.

Dr. Crile (closing): I was extremely interested and instructed in the papers of my colleagues this afternoon, and there is nothing in particular I see to discuss, because they have been well discussed on the floor. However, in closing, I do wish to express my very great approval—that is to say, the results I have seen in operations for diseases of the stomach, where they were taken care of by the internist after the operation. I am particularly delighted with Dr. Sawyer's statement with regard to his ideas as to the indications.

I do not want my friend Dr. Sutton to be discouraged. I think because in times past it has been so difficult to reach a case of gastric carcinoma at the operable period, it would be better to review the cases and show how little can be done in a late stage when only a diagnosis can be made clinically. I am sure, as Dr. Hall says, we shall be able in the future to report better results. I do not wish to say surgery has not been a success. It has been in a measure. We know that gastrectomy has rendered these cases more comfortable. We have not done enough, and we would like more cases of permanent cures. We should see the cases earlier if we are to bring out more encouraging results. We would then do a better operation, more careful and more radical.

Finally, I want to emphasize the great safety with which surgery of the stomach can be done today. The mortality rate is not more than $\frac{1}{2}$ to 2% in favorable cases. Of course, the percentage rises with the morbidity of the given case.

Dr. Lichty (closing): I wish to lay emphasis on the value of olive oil. I find that patients are willing to take it as a food.

The matter of leaving these patients alone has been spoken of. I know of one ulcer case left strictly alone by the practicing physician. The patient had repeated hemorrhages of the stomach which were considered insignificant. The patient

is working in his office today, and there is a bleeding vessel large enough to insert the end of a match. We don't like to leave these people alone. Another case I thought operated on too late is still living and working in the fields.

Most do not diagnose cases, but simply prescribe and the case goes on to a fatal termination through another condition, frequently appendicitis or other trouble without the stomach.

I would call attention to the infrequency of ulcer in hypoacidity, which is contrary to the text books and most authors. The low percentage of hypochlorhydria he gives is contrary to my experience. I find that 50% are hypoacidities and a great percentage hypochlorhydries.

Dr. Dunham (closing): Unfortunately in my experience I have not had the favorable results from the use of oil which it has given in the hands of Dr. Sawyer.

I would say a word in emphasis as to the use of the stomach tube. Most physicians consider this a formidable procedure. It does not require great skill, and in my experience it has not been necessary to use a local anesthetic. I think it rather increases the discomfort of the patient and hinders the introduction of the tube than otherwise.

GLANDULAR FEVER.

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Marion, O.

[Read before the Medical Section of the Ohio State Medical Association, at Cedar Point, O., August, 1907.]

Glandular fever may be defined provisionally as an acute infectious fever, characterized by inflammatory swelling of the deep cervical glands, and other lymphatic glands, anorexia, constipation, and associated with or followed by marked depression and anemia. Dawson Williams states that "E. Pfeiffer described the disease in 1889, and expressed the opinion that it was an acute specific fever previously unrecognized." He pointed out that it occurred in narrowly limited epidemics, and that most of the children of a family contracted and suffered from the disease, and that other writers confirmed this statement, but he does not name them.

The disease was described by and observed by other writers, as Filatow of Moscow; Donkin, in the *Lancet*; Fischer, and Dawson Williams, the latter being the author of a splendid article

in Albutt's System of Medicine, second edition, Vol. III; he is also the author of an article in the Twenty-Century Practice of Medicine, Volume XIV.

James Cantlie, in a lecture on "The Spread of Plague," and published in the London Lancet, January 2 and 9, 1897, page 5, says as follows: "Is there a disease of an epidemic character, attended by a low death rate, characterized by polyadenitis and showing in the blood and the tissues a bacillus resembling the bacillus, met with in typical plague (malignant polyadenitis), and yet so apart clinically that it is either a separate disease or caused the same bacillus in a lesser or non-toxic form? In the discussion of this subject it is necessary to ask the following questions: 1. Does *pestis minor* occur as a precursor, as a collateral, or a sequela of true plague? 2. Is it confined to the plague district delineated on the map? 3. Has it anything to do with the plague? 4. Is it the disease, per se? He continues and quotes Dr. Payne, from the Encyclopedia Britannica, as follows: "In the minor forms of the disease spontaneous swellings of the glands occur chiefly under the armpits, but also in the neck or other parts, which either undergo resolution or suppuration. There is a certain amount of fever; the temperature rarely runs high, but has been known to reach 104° F. The duration of the disease is known to run ten to twenty days usually, but has been known to last eight weeks, for most of the time the general health is but little impaired, and the patient able to go about as usual. It rarely, if ever, causes death, the only fatal case occurring at Astrakan, in 1877, having been through complication. The disease is not obviously contagious; whether it is propagated by infection is not known. It is possibly rather of a miasmatic character. This form of disease has sometimes preceded or followed epidemics, as in Mesopotamia (Iraq) on several occasions (1873-1878), and in Astrakan (1877). He further says that "its importance in the relation to the origin of plague has only lately been appreciated."

"It might be expected that gradations would be found connecting this with the severe epidemic form, but this appears to be not usually the case, the latter appearing somewhat suddenly and abruptly, hence, the minor form has often been regarded as a distinct disease, even when observed in plague countries." From all hand we have evidence of such a disease, namely, "a *pestes minor* benign polyadenitis."

"The Russian outbreak at Astrakan in 1877 was probably, nay, certainly, of this nature, the

low rate of mortality being sufficient to stamp it other than true plague. It is to be noted that the typical plague which ranged in the same provinces appeared, not amongst those afflicted with *pestes minor*, but in a district 150 miles away, where *pestes minor* was unknown."

Dr. J. Parke West has, in a paper read before the Academy of Medicine, New York, November 12, 1906. I cannot say where published, but I think in the Archives of Pediatrics, and quoted very liberally in a number of text-books, has described the most widely-spread epidemic of any writer to date, and has given the most accurate description of the disease of any author whom I have had an opportunity to consult.

West states that: "In an epidemic in which ninety-six children between the ages of seven months and thirteen years, there occurred ninety-six cases in forty-three families, and rarely did a child escape who had been exposed to the infection, and that it (the epidemic) occurred between the months of October and June. The cervical glands, especially the deep ones bordering the sterno-cleido-mastoid muscles, were always involved, and the mesenteric glands in thirty-seven cases; the spleen in fifty-seven, and the liver in eighty-seven cases."

The etiology of this infection is still unknown. Bacteriological studies have failed to reveal any specific micro-organism, although it has been suggested that some specific organism may have entered the system through the nasal chambers or the avenue of the tonsils. There seems to have been a close relationship between the disease in question and epidemic mumps, as West reported that fifty-seven cases had either had mumps recently, or were soon afterward affected by them, and again epidemics have occurred independently of them. German measles have been mentioned as having some relation to glandular fever, but such a relationship has not been sustained. A. E. Rousel has reported four cases in which one occurred in an adult, and occurring between the months of October and June. Hand states that glandular fever bears an etiological relationship to some of the protean manifestations of influenza.

It is said that the incubation period is from five to seven days. The epidemic which occurred in Marion, Ohio, occurred during the late fall, and extended into the late spring months, and I am quite certain that many cases had occurred and recovered before the nature of the disease was recognized. Finally the disease occurred in the person of my own son, aged eight years, and his condition so closely resembled acute lymphatic

leukemia that I had made a number of examinations of his blood, which, to my delight, proved negative. At this time I was seriously considering the idea of calling an expert diagnostician for a specific diagnosis, when the expressman haled to me Vol. II, Albutt's System of Medicine, second edition, and it so chanced that I happened to open it to "Glandular Fever," which attracted my attention, and I hastily read the article; the diagnosis of my own boy's case was made at once, and I telephoned to some of my professional friends, and found that they, too, were treating patients suffering from glandular enlargements and other symptoms similar to those of my own boy, and my other cases, and had failed to recognize their true nature. The symptomatology will be brought out in the report of my cases.

Case I. Alwyn, aged eight (my son), four weeks after having recovered from a severe attack of mumps, complained of chills and general malaise, loss of appetite, looked very ill and pallid; positively refused food; fever ranging from 102 to 104. The temperature remained as given from the twenty-third until the thirty-first, after which it gradually receded to normal and remained so. On the third or fourth day of his illness the deep cervical glands were decidedly enlarged, particularly those along the border of the sterno-cleido-mastoid muscle, the left side more marked. The submaxillary, then the axillary, and the inguinal or the right side were also involved; the abdomen was tender, and the mesentery glands were enlarged and sore; the liver and spleen were enlarged; the latter was tender; the tonsils were enlarged; the pharynx was very red and had a puffy appearance. There was positively no exudate. He suffered from headache, pain in his legs; all the muscles of the neck were sore and stiff, and it was with difficulty that he could even turn his head, and at this time he appeared so pallid that his ears looked almost transparent, and with one exception I never saw a more marked appearance of anemia.

He, as were all the other patients, was decidedly constipated, and when the bowels were moved by small and repeated doses of calomel, the stools were of a mucoid character. Urine was negative, although Williams states that: "Nephritis does occur and may be attended by hematuria." His extreme pallor suggested a blood count, which on the fourth day of his illness resulted as follows: Hemoglobin (Dare's instrument), 73%; erythrocytes, 4,336,000; leuco-

cytes, 14,000; three days later, hemoglobin, 73%; erythrocytes, 4,100,000; leucocytes, 15,000.

Differential count resulted as follows. Total number counted, 383:

Neutrophiles	195=50.41%
Large mononuclears	55=14.36%
Small mononuclears	106=27.19%
Degenerative cells	9= 2.35%
Transitionals	10= 2.61%
Eosinophiles	6= 1.56%
Irregulars	4= 1.00%
Myelocytes	2= 0.52%

A second count, after a lapse of five days, gave very similar results to the above. The acute symptoms continued two or three weeks, and his convalescence was very tedious and slow; the medical treatment proved practically of no avail; and I am unable to state that I could note any benefit from his medical treatment other than palliative until the convalescent period, when I thought that he improved from the administration of syr. ferri-iodide and extract of malt, which was given to him, and a nourishing and easily-digested diet. After a period of six weeks or two months he appeared restored to his former health, except that he remained somewhat pallid.

Case II. Infant, female, nine months old. Was called to see her on account of the intense swelling of the glands about the neck and throat. She had been ill for a period of one week. The swelling on the left side was decidedly marked, filling the entire space from the ear to the clavicle. Tonsils enlarged, throat red, decided stiffness of the neck, as she could not turn the head in the least, and would cry if any attempt was made to move the head or the neck; the glands in the axilla were enlarged, and the abdomen was tender. Liver and spleen slightly enlarged; the glandular enlargement on the left side of the neck seemed almost confluent. Pulse rate was rapid, temperature ranged from 98 degrees to 102.5; loss of appetite; refused food, and was decidedly constipated.

This condition continued for a period of ten days or two weeks, after which she progressed to a complete convalescence. No blood count was made in this case. Treatment consisted of small doses of Dover's powder to relieve pain and procure rest; bowels were moved with small doses of calomel and enemata, an ointment consisting of guaiacol, unguent hydrarg. with a lanoline and vaseline base was applied to the swellings with apparent benefit. I might add that the cervical glands in this case were swollen to size of quail's eggs or a medium sized plum.

Case III. Male, aged twelve years. Taken ill

with general malaise, sore throat, fever, pain and stiffness in the neck, decidedly enlarged and swollen tonsils, pharynx red, but no exudate. The glands along each side of the neck, bordering along the sterno-cleido-mastoid muscle were swollen as large or larger than pigeon eggs; there was enlargement of the supra and infra clavicular glands, and also of the axillary, inguinal and mesenteric glands. Anorexia, constipation and extreme pallor were also present.

The blood count was as follows: Hemoglobin estimate (Dare's instrument, 82%; Talq., 80; erythrocytes, 3,860,000; leucocytes, 12,000, and relative count of a total of 367 leucocytes.

Neutrophiles	53.13%
Small mononuclears	24.40%
Large mononuclears	15.52%
Transitionals	2.75%
Degenerate cells	1.62%
Basophiles	1.36%
Eosinophiles	3.50%

This boy presented a decidedly cachectic and an anemic appearance. His temperature ran an intermittent course, and it appeared at one time as though the glands in the neck might suppurate, but the local application above mentioned having been applied to the swollen parts, either caused their resolution, or nature aided us in their cure, and gradual reduction to their normal size took place.

The internal medication consisted in the administration of syr. ferri-iodidi et malt extract, and plenty of nourishing food. This was rather a difficult case to manage, for he was permitted to take all the liberties and eat as he desired, at all and any time he chose; his convalescence was somewhat slow, and it was some time before he could return to school.

Case IV. Male, aged two years. Stout, hearty-appearing boy; was seen after he had been under treatment by another physician who had diagnosed the case as one of tonsillitis. When seen by the writer, through the courtesy of Dr. J. A. McMurray, the child had a fever of 102, rapid pulse 130, tonsils, sweats, and was also decidedly constipated. The glands about the neck, and the clavicles were swollen, particularly on the left side. The axillary and mesenteric glands were enlarged, tender and sore; liver tender and enlarged. Spleen, negative. There was decided stiffness of the muscles about the neck, and although the little fellow could run about the house, his movements and manner of walking indicated a decided muscular stiffness and soreness. His condition remained about the same for a period of three weeks, when he slowly convalesced with-

out other complications. I did not treat the child, but the results of medication were practically nil.

I should further add that in this case the appearances of anemia were not so marked as in former cases. Blood count: Hemoglobin (Dare's instrument), 64%; Talq., 70; erythrocytes, 4,360,000; leucocytes, 8,900. Total count of leucocytes, 513. Relative count is as follows:

Neutrophiles	253=48.31%
Large mononuclears	69=13.45%
Small mononuclears	169=33.00%
Degenerate cells	7= 1.36%
Eosinophiles	3= 1.00%
Transitional cells	8= 1.55%
Basophiles	3= .58%

R. C. M. Lewis has placed the clinical records of ten or twelve cases, which came under his observation, of which he has certainly made careful notes, and Dr. Young furnished the clinical history of two typical cases for my study. I have carefully reviewed all of them, and find them presenting about the same clinical histories, with practically the same or similar symptoms and conditions as the cases of which I have reviewed in this paper, and which were selected for record from my own private cases.

I would call attention to the relative or quantitative count of leucocytes in the above cases; you will note that the neutrophiles are reduced from the normal, viz.: 70 to 75% to 50%, or below it, and the mononuclears are increased from the normal; large and small equal 25% according to Ehrlich, and in the above reported cases you will note that in one case they equal 46.5%, in another 39.73%, and in other first case reported, 41.55%.

The clinical picture of the blood state of the above cases is suggestive of the similarity or likeness of glandular fever and acute lymphatic leukemia, and the necessity of resorting to careful examination of the blood before making a differential diagnosis. The course and severity of the disease is neither modified nor abbreviated by internal medication, and the latter only to palliate the pain and discomfort of the sufferer. The clinical picture of typical cases of glandular fever resembles acute lymphatic leukemia in the stages so closely that either the microscope or time, or perhaps both, will be required to make a differential diagnosis.

The prognosis is always favorable, and a search of the literature fails to record any deaths from uncomplicated cases. Cantlie had one death in the cases which he has reported in the *Lancet*.

Summary: The clinical facts favor the view

that it is a specific disease, and that there is some unknown relationship to mumps.

That one of the most constant characteristics is the non-suppurative inflammation of the glands of the triangles of the neck.

That outbreaks occur in small groups, and that adults and infants are usually exempt from the disease.

That the premonitory symptoms may be preceded by a period of malaise, but that the acute symptoms appear suddenly.

That there is a persistent constipation during the acute stages.

That there is always a decided stiffness of the muscles of the neck, and any attempt to move or change the position causes pain.

That although the conditions of the neck and throat are decidedly suggestive of diphtheria, there is a constant absence of any exudate.

That the appearance of an intense anemia is not in harmony with the blood state.

That there is usually present decided tenderness of the abdomen due to swelling and soreness of the mesenteric glands, and that the liver and spleen are frequently enlarged.

That the course and severity of the disease is neither modified nor abbreviated by internal medication, the latter serving to palliate the pain and discomfort of the sufferer.

That the clinical picture of typical cases of glandular fever, resembles acute lymphatic leukemia in the early stages so closely that either the microscope or time and perhaps both will be required to make a differential diagnosis.

That the prognosis is always favorable, and a search of the literature fails to record any deaths in uncomplicated cases.

Since the writing of this paper, death has called one of the cases which I have reported in detail, viz.: Case No. III, whose convalescence was a tedious one. He continued to look cachectic all summer, and later in the fall was taken ill with what seemed to be an attack of follicular tonsillitis; he had rheumatic pains in the legs, and at the same time a rash similar to urticaria, but there were petechiae all over the legs and one arm, which remained for some time. He was irritable, had a decided heart disturbance, heart was very much enlarged, pericardial adhesions were present, abdominal ascites appeared, localized dullness in various portions of the lung developed very much swollen. Liver was fully three inches below the border of the ribs, spleen enlarged, and he died in uremic convulsions. Tubercle bacilli were found in the feces. No autopsy permitted, but the physical evidences and

symptoms would fully warrant the diagnosis of a general tubercular infection, involving the kidneys as well as the other structures. His blood was that of a typical tubercular infection at the time of his death.

DISCUSSION.

Dr. Upham of Columbus: Glandular fever belongs to the class of diseases considered by the general profession of so great rarity and of so little seriousness as to really cause few to take interest enough to look it up or study it. I confess that up to recently I knew little of it and had never seen a case; there was, however, a slight epidemic of it in Columbus in the late spring, and I personally had three cases. This epidemic seems to have followed an epidemic of mumps, and I have wondered if some of the cases called mumps may not have been instances of this disease, because in the early stages it would be quite easy to make a mistake in the diagnosis. When the disease is well advanced, however, the clinical picture is so striking that a mistake in diagnosis is difficult to make if one has really thought about the subject of glandular fever.

The interest to me centers on the etiology and differential diagnosis. The etiology, as stated by the essayist, is infection. No specific organism has been found. It is shown to occur in epidemics and therefore to be to some degree contagious, but the exact etiology is at present undiscovered.

Of the three cases I have seen, the first occurred in a child whose sister had recently had an otitis media. From the discharge from the ear the staphylococcus aureus was isolated. About ten days after the discharge developed this case of glandular fever in the younger brother occurred. I cannot say what was the relation.

The other two cases were in the same family, and the only history of exposure that seemed at all suggestive was that about ten days previously the laundress employed by the family appeared with a swollen jaw, which she said was due to a sore tooth—probably an infection of staphylococcus also. Whether there was any relation I cannot say. From the interesting blood count made it would seem that glandular fever is not due to the pyogenic group. The low neutrophile count would not indicate an infection of the pyogenic organisms, although in my three instances there seemed to be a possible presence of staphylococci as an etiological factor. The differential diagnosis is of interest, because of the "lopsided" enlargement of the neck of these children, which is alarming to the parents. They recognize a difference from mumps and the diagnosis of glandular fever should set their fears at rest, because I have never heard of serious results in this disease.

Dr. Yocum of Wooster: The subject of the essayist and the talk by Dr. Upham recall a case I saw in my territory which did not result so fortunately as the cases reported. This case of glandular enlargement of the neck followed a case of similar infection in two other mem-

bers of the family. It resulted in a meningitis, and that is why I report the matter. I recognized it as an infectious disease, but did not name it; the infection was evidently taken up and involved the cerebral meninges, the patient became unconscious, and death resulted. I would like a little more enlightenment on the subject while the paper is under discussion.

Dr. Winton of Toledo: In my practice at Toledo during the past two or three years I have had several cases of what might be termed glandular fever, and I have met the same perplexities that have been spoken of as to diagnosis. I adopted the plan of using antitoxin, after treating them without satisfactory effect by other remedies, and in my experience of at least half a dozen of just such instances, 1000 units of diphtheria antitoxin produced prompt results. This disease is right along the line of diphtheria, but the lack of the membrane which prevents the diagnosis of diphtheria, and for that reason I do not give antitoxin in the first place; but if I fail to get any response from any other remedy, I give small doses of diphtheritic antitoxin, not to exceed ten hundred units, and I have had good results, the case clearing up within a week.

Dr. Zininger: I merely rise to ask a question. I am not familiar with the literature on these complex symptoms we are designating as a disease, but I would ask Dr. Crane whether there has been any report of an extensive epidemic that had no connection with simultaneous epidemic of mumps—whether there is any series of cases recorded in which mumps was entirely foreign to the trouble. We all know of the frequency with which we get fever and some glandular enlargement as a sequel to mumps. Sometimes the patients go about their work and later develop high fever and some glandular enlargement.

Dr. Mitchell of Cincinnati: I would ask another question, whether any epidemic of so-called glandular fever has occurred at a time when an epidemic of diphtheria was obtaining, and also whether any systematic examinations have been made of smears from the throat for bacillus of diphtheria in so-called glandular fever. I have watched for it a number of years and never felt justified in making a diagnosis. I have a suspicion that some of them were cases of diphtheria in which the membrane was not present or not in sight. I have seen cases of diphtheria in which no membrane was formed. I should like to hear from Dr. West, who gave us such an admirable paper a few years ago.

Dr. West, Bellaire: I am glad to hear this paper and discussion for two reasons. The first is that the subject seems, just now to be attracting some attention. I wrote a paper on this subject six years ago and it received no attention whatever. The second is because of the study Dr. Crane has made of his cases. There has been very little bacteriological study of this disease thus far, but what has been done shows that it is not diphtheria, and also that the organism causing the infection has never been found. I do not believe that it is either diphtheria or mumps. I raised the question in my

first paper in 1896 as to mumps, and have been sorry ever since that I did so, for it does not resemble mumps in any way, and I believe I have only mystified the subject. At the time of my paper in 1896 there was no literature in English, but some in Russian and German on the subject; since, however, there has been quite a little written in the English language, and seems to me the disease has been so definitely described that there should be very little, if any, trouble in recognizing it. Quite a number of writers think there is no such disease as glandular fever—that it is probably a type of some other acute infection or well-recognized disease, or only a manifestation of some local infection or inflammation. The ninety-six cases reported in my original paper were all studied by Dr. Carroll, and his reports I think should be sufficiently convincing. I have seen since then eight cases, three of which I gave careful study and described them in the transactions of the society. Two years ago this past fall we had an epidemic in my town—fifteen cases I think. They all showed the same characteristics as the cases that had been reported before, a sudden onset, high fever and severe pain. The nodes were on the left side, and high up under the sterno-mastoid. A general swelling appeared, but on careful examination you could find four or five well-marked nodes. They increased for two or three days, and the nodes in the meantime commenced on the right side and in almost all cases went to other regions, sometimes in the abdomen. But, of course, one must speak carefully about the latter, because they are difficult to detect, but in a few cases I thought I detected them.

I do not believe in the cases I have seen there was as much involvement of the pharynx as Dr. Crane speaks of—usually some slight redness only. I have always tried to be very careful to be sure there was no inflammation or irritation that would have caused the enlargement.

I have only one point to add in the treatment of this disease, and that is in the convalescence I found in the first case that small doses of calomel, frequently repeated, had a beneficial effect, but that catharsis had a bad effect. For the after treatment I have found arsenate of iron to give the best results in overcoming the anemia.

Dr. Imobersteg of Toledo: I would like to ask whether the salicylates have been tried or not. I heard considerable about this last winter and was on the lookout for days, and I finally thought I had two or three cases. They had the pain, and the swelling of the glands and some muscular pain, but I found the symptoms cleared up after the use of the salicylates, and I wondered if they had some relation to rheumatism. I decided these were more rheumatism than glandular fever.

Dr. Crane (closing discussion)—I will answer as best I can from my observations. First, with regard to diagnosis. We are all aware that mumps is a disease which according to the literature does not involve the lymph glands but the salivary glands. From the literature I have seen there is no mention of the salivary glands being involved. Not only that, but we are well aware that mumps is unaccompanied by the pallor described in glandular fever, and moreover,

it is a disease of short duration, rarely lasting over two weeks, not accompanied by depression.

As to the question of diphtheria, I stated in the paper that the throat was inspected and in no case was there any exudate and no evidence of involvement of the urine or any of the sequelae that follow diphtheria, no otitis media, no inflammation of the ear or nose or otherwise. The blood count, it occurs to me, would be sufficiently distinctive to show us it is not due to pyogenic germs, for in such infections we would have an increase of the neutrophiles, while in glandular fever we have a reduction from normal down to an average of fifty. That is a distinctive point in the diagnosis.

In regard to the salicylates, various forms were given to relieve pain and also reduce temperature, with only palliative results.

In the one case of meningitis mentioned, I believe the gentleman was mistaken in his diagnosis on the same ground just mentioned; his case must have been a pyogenic infection.

RADICAL CURE OF INGUINAL HERNIA.

GEORGE GOODHUE, M. D.,
Dayton.

[Read before Cedar Point Meeting, 1907.]

No excuse is demanded in presenting this subject to your attention today. Its consideration is forced upon the physician as well as the surgeon in his every day work whether he will or not.

Hernia is no respecter of persons; it afflicts both sexes and those of every age; it visits the palace of the rich as well as the hovel of the poor.

Preparation to meet it wisely is the duty of every physician. The frequency of hernia far exceeds the popular estimate; probably one-tenth of the entire human family is afflicted with this complaint. Philadelphia alone manufactures over a half million trusses yearly. According to the United States census report, one death to every six hundred is due to this malady. It is not, however, the great mortality connected with this affliction that impresses the importance of its study upon our minds so much as the untold misery of its subjects who are doomed to the thralldom of the galling truss.

We are also forced to its consideration from an economic standpoint, for there is no anatomic defect in the whole human system that impairs its usefulness to such an extent, or is in so great a degree a barrier to toil and its consequent emoluments as the malady under consideration. With one-tenth of our population hampered in life's activities by hernia, it is time that American surgeons should take up the song

sung by Sir Astley Cooper over a century ago, and emphasize and elucidated by Henry O. Marcy fifteen years ago, one of the gentlest characters known to mankind—yet a profound thinker and inventive genius, with a courage equal to his convictions, and always ready to battle for the right whether in the arena of municipal reform or in the line of his chosen profession—the father of absorbable sutures, that have done so much to simplify herniotomy and to render permanent its results. It is time, I repeat, to take up the song of these pioneers, as has been recently done by Ferguson, in his masterful work, and emphasize the beneficence of operation until every sufferer from this defect shall have learned from his family physician that there is a deliverance from his bondage that is fraught with little danger and eminently successful in way of permanent results.

The history of procedures for the cure of hernia is interesting and instructive. It shows how near our early surgical masters came to the solution of the problem, as was the case in appendectomy, yet both were obliged to wait until Pasteur and Lister evolved the principles of antiseptics.

The possessor of the first hernia probably was the first person to consider means of relief and contemplate plans for radical cure. Hippocrates differentiated hernias and discussed their causation. Celsus opened the hernial sac with the knife, tied the spermatic cord, removed the testicle and a part of the scrotum and sutured the lips of the wound in such a way as to form a solid cicatrix.

Possibly McBurney conceived his method of cicatricial closure from this old Roman author. In large ruptures the cautery was often employed. The French surgeons, in the early days, attempted the radical cure by filling the wound with lint soaked in oil and yolk of egg; showing that even then drainage was an accepted surgical procedure, although it is generally considered of modern origin.

Through the leadership of Sir Astley Cooper and Scarpa the attention of surgeons was intelligently directed to the anatomical structures presented in the problem which has been of valuable service to those coming after them.

The first case of reducible inguinal hernia operated on in America was done by Dr. Pancoast of Philadelphia in 1836. His method was by injection of tincture of iodine into the hernial sac.

In 1840, Dr. George Heaton of Boston employed the same method, with the exception of substituting fluid extract of oak-bark as his

medicament. The method of injection is commonly termed Heaton's method, as he employed it many hundred times and popularized it by his enthusiastic devotion in the pursuit of the subject, even amidst the severest criticism of his professional brethren.

In his day there was some excuse for this procedure, for a half loaf is better than none at all, but since the advent of antiseptic and aseptic surgery it has been relegated to charlatans and surgeons more noted for their timidity than scientific attainments. At best it is an attempt to fill the ring with a material foreign to its primary construction. Moreover it is blind surgery and consequently bad surgery. The open method with all the anatomical structures plainly in view is the only procedure advocated today. When we enter into the consideration of the percentage of permanent cures following radical operation, we find ourselves involved in great difficulties. A large proportion of our patients are from the laboring classes, who demand an operation that they may be enabled to earn their daily bread, and are met in hospital practice. They generally disappear from our view in a few weeks, and do not return for inspection even if urgently requested to do so. They are a class of people who frequently change their abode, and it is almost impossible to follow them.

The results obtained are evidently dependent not merely upon the method adopted, but the personal factor enters into the result more largely than in most operations.

Bassini records two hundred and fifty-eight cases, with seven failures. Marcy traced seventy-eight cases, with four failures. McBurney, thirty-one cases, with no failures, and Ferguson, three hundred and fifty-six, without a single known recurrence, having been able to trace two hundred and twenty-five of them for over two years. While the statistics relative to permanent cures can not be definite and wholly satisfactory, the mortality table is quite exact and enables us to estimate the dangers of the operation quite accurately. Bassini reports two hundred and sixty-two cases with one death; Marcy one hundred and twelve, with no mortality; and Ferguson in over three thousand cases tabulated, reports a mortality of less than one per cent. The above tables include results from all kinds of hernias, and if we eliminate femoral and umbilical hernias, which are more unfavorable both in regard to mortality and permanency of cure, and confine our investigation to inguinal hernia, which is the subject under discussion, our results would appear more encouraging.

While operations for femoral hernia have been much simplified by Ochsner and former unfavorable results in umbilical hernia have yielded to the ingenuity of the Mayo's, I shall confine my further discussion to inguinal hernias as they form eighty-two per cent of all cases that present themselves to the surgeon, and I feel that we have advanced in this department of work to such an extent that we should be able to conform to some uniform method of procedure with such slight variations as an occasional individual case may demand.

In examining methods of operation for oblique inguinal hernia described in Ferguson's admirable work, I find forty-five different operations tabulated. It almost makes us blush to find that each one bears its inventor's name.

An apparent attempt has been made by many of these experimenters to immortalize their name and gain a place in the hall of fame, by making some discovery along this line and attaching their name to it. Some discoverers claim they have found different suture material that is of invaluable advantage to the operation, and attach their name to this manner of closure.

One uses silver wire which he removes; another uses silver wire which he allows to remain. A. M. Phelps of New York claims that he can introduce into the inguinal canal from twenty-five to one hundred feet of silver wire and permit it to remain without disturbance. In one case he placed three hundred feet without subsequent disturbance. In one case he placed three hundred feet without subsequent discomfort. This is known as Phelps' operation, and is instructive only in way of demonstrating the tolerance of the human system.

Another operator uses aluminum bronze wire instead of silver; this he removes in two weeks, and claims it is preferable to silver because of its greater tensile strength, allowing him to use smaller wire which does not kink so readily and can be removed from the patient with less pain. His name is also attached to this operation.

Another buries a mat of woven wire over the weakened ring to prevent escape of the abdominal contents, having noticed that a window screen impedes the passage of insects. The employment of any of these foreign bodies to be left permanently in situ has been frowned upon by the profession.

This professional attitude probably suggested the other extreme to Roswell Park and L. L. McArthur and led them to use the autoplasmic suture, the one utilizing the sac and the other the aponeurosis of the external oblique muscle. These methods give evidence of the ingenuity of

the American surgeon, but are wholly unnecessary since the introduction of kangaroo and steer tendons and chromocised cat-gut, and have only gained sufficient foothold to immortalize the names of their authors.

Macewen's operation was the first rational method given to the profession for the radical cure of oblique inguinal hernia. Its fundamental principle consists in utilizing the hernial sac to form a boss or plug at the internal ring. Unless great care is taken not to injure the neck of the sac or lower its vitality, by passing a ligature around it, there is danger of necrosis.

In case sloughing is happily avoided "this tampon must of necessity leave a hard, painful swelling, slow to disappear," as pointed out by Marcy. Experience has proven that such a plug is not essential to permanency of cure, and has been generally abandoned.

Fowler devised a plan which he termed an "intra-peritoneal transplacement of the spermatic cord." In this operation the cord is exposed in the usual way, raised from its bed—the deep epigastric vessels tied—the posterior wall of the canal freely opened—the cord transplanted within the abdominal cavity to make its exit at the lower angle of the wound.

This is surely an heroic method and should be employed only in cases where there is great bulging of the posterior wall of the canal or when complicated by a non-descending testicle. In the latter complication this method gives the vas deferens a shorter route between the base of the bladder and the testicle.

Kocher's operation differs from all others and possesses elements of merit. The essential feature consists in the disposition of the sac. A small slit is made in the aponeurosis of the external oblique muscle above and external to the region of the internal abdominal ring and the sac, after having been isolated, is passed up through the inguinal canal and slit above mentioned and stitched therein—the protruding sac being sutured in front of the inguinal canal.

The vitality of the sac being thus lowered it frequently suffered necrosis and its author modified it by ablating the protruding sac. Not being satisfied with either of these methods, Kocher claims to have simplified his operation by another modification which he calls "transposition by invagination." He claims much better results from his third method, but instead of simplifying his operation he has rendered it much more complicated.

I have employed his second operation, or that of lateral transposition, more frequently than any

other and with moderate success. Its advantage consists in not opening up the inguinal canal or disturbing the cord, and in case of suppuration, success is usually obtained in spite of this accident.

While this is an ingenious method it does not leave the peritoneal tissues in their normal relations and has never appealed to me as being based on anatomical principles, and is surely possessed of two distinct disadvantages, viz.:

First. Increased difficulty in detecting and isolating the hernial sac.

Second. Its adaptation to special forms of hernia only.

In all cases of old long-standing hernia with thickened and non-elastic sacs, the surgeon must adopt some other procedure.

The Bassini operation is perhaps the most popular one today, yet in my opinion it can not stand the test of time and progress. Its distinctive feature, the raising of the cord completely from its bed and carrying it to the upper and outer angle of the wound is irrational in theory and experience has demonstrated its inadequacy. Any operation necessitating the displacement of the cord subjects the patient to the risk of injury of its delicate structures with consequent complications which should be avoided if possible.

That such a procedure, which is the characteristic feature of the Bassini operation, does not fulfill its purpose is exemplified by the number of relapses occurring at the upper angle.

If the same or better results can be obtained without disturbing the cord and subjecting its delicate structures to mechanical injury the Bassini operation should be discarded and a substitute adopted.

Over six per cent of the recurrences in Bassini's operation appear at the upper angle, which is readily explained when we consider that the cord has been transplanted there, preventing the internal ring from receiving full protection.

This is sufficient reason for abandoning that operation when another has been discovered in which recurrences are almost unknown, which is easier of execution and involves less manipulation of the tissues. This operation was devised by Ferguson of Chicago in 1898, and presented to the profession in 1900, which he styles the typic or anatomic operation. Ochsner tested it for some time in all cases of double oblique inguinal hernia, doing a Bassini on one side and a Ferguson on the other. His comparison of the two methods has led him to adopt the Ferguson altogether during the last four years. The Mayos have employed the Ferguson method

over twelve hundred times with favorable results.

The author of this operation, while acknowledging that the etiology of oblique hernia is still to some extent an unsolved problem, discovered in all his cases a deficient attachment at Poupart's ligament of the internal oblique muscle.

The distinctive feature in this operation consists in leaving the cord undisturbed and suturing the internal oblique muscle to Poupart's ligament two-thirds of the way down. This is the normal attachment in the female in whom inguinal hernia is rarely found.

This operation is founded upon anatomical principle rather than empiricism or expediency, which seems to be the basis of many of them. In this operation every step taken seems to be based on a rational foundation, with results unapproached by any other procedure. The subserous adipose tissue which is an etiologic factor in hernia is removed when present. The sac is tied to restore the rotundity of the peritoneum. The transversalis fascia which forms the internal ring which has become stretched by the protruding hernia is sutured accurately about the cord to restore its normal condition, the deep epigastric vessels are left uninjured to play their natural part in nutrition and repair; the cord is undisturbed, thereby eliminating all jeopardy to the delicate blood vessels upon which the testicle depends for its life and proper function and allowing the vas deferens its natural highway. The internal oblique muscles are sutured to Poupart's ligament two-thirds of the way down, which is their normal attachment. In case of the deficiency of these muscles or the conjoined tendon, the rectus muscle, after its sheath has been freely opened, is brought across the weak point as suggested by Halstead and Bloodgood. The external edges of the aponeurosis of the external oblique muscle are sutured, or in case of redundancy overlapped in accordance with Andrews' imbricated method, thereby restoring the external ring. The operation is completed by suturing the superficial fascia and skin, and we will notice that all the structure composing the abdominal wall are brought together, except in extreme cases, in their normal relationship.

From such an operation we ought to expect the best results. The author reports two thousand five hundred cases operated on by different surgeons in accordance with this method without a single known recurrence. In the light of this experience and the fact that this method is applicable to all forms of oblique inguinal hernia, I

do not hesitate to recommend its universal adoption.

After wandering through a maze of operations for the cure of this malady for many decades it is a cause for rejoicing that we have found one based in its entirety upon scientific principles.

In this anatomical operation there seems to be common ground upon which surgeons might come together and unite their energies in the perfecting of their technique and popularizing the operation until the wearing of a truss should be the exception rather than the rule. The greater the uniformity in this operation, if based on rational procedure, the more rapid will be our advancement in this line of work. John Wyeth, in his admirable paper read at the last meeting of the American Medical Association, urged upon the surgeons the desirability of uniformity of method in appendectomies.

With this typic operation presented to you in a field of work where the conditions encountered are similar and more constant than in appendectomies we plead for uniformity of operation with equal earnestness and greater hope of accomplishment.

DISCUSSION.

James U. Barnhill, Columbus: I have been very much interested in Dr. Goodhue's able presentation of the advantages of the Ferguson operation for the radical cure of hernia. I believing there is a growing sentiment among surgeons in favor of more uniformity of method, and also in favor of the operation which aims to restore, as far as possible, normal conditions. This is the distinctive feature of Ferguson's procedure. There are, however, cases of congenital defect of structure and of distortion and atrophy of important structures which make it quite impossible to restore the parts to normal anatomical position. For such cases there is a field in which special operations may secure better results than would otherwise be possible. In case of absence, or great attenuation, of the conjoined tendon, the utilization of the rectus to strengthen the posterior wall of the inguinal canal, as recommended by Halsted and Bloodgood, may be advisable. So in some cases of marked stretching and weakening of the aponeurosis of the external oblique, it seems to me we may get better results by imbrication or overlapping the flaps, as recommended by Andrews and others. I have, myself, devised an operation for large hernias, with relaxed abdominal wall, wherein the cord is passed through the imbricated aponeurosis of the external oblique with a view of protecting the cord and strengthening the abdominal wall and abdominal ring. But this operation is only indicated in special cases.

Dr. Goodhue's paper is a timely one. The great number of people suffering from hernias is evidence that the public still lacks confidence in our ability to effect radical cures, and the great

number of operations indicate that we have not yet devised satisfactory methods of operation. But I think operators, whether they have called the operation by Ferguson's name or not, have, in cases permitting it, that is, in cases susceptible of restoration of parts to anything near the normal position, followed the essential features of Ferguson's method. In other cases where they have felt that defective structures could not be brought into normal position, atypical approximations have been made in the hope of securing a strong wall and strong abdominal rings.

The results from Ferguson's operation by various operators quoted by Dr. Goodhue, are better than have been secured by any other operation. The appeal is simply to restore normal conditions; and if this be possible, that is, if the anatomical parts are present and can be restored to normal position, then this is, it seems to me, the rational procedure and the one that is most likely to receive general endorsement.

J. A. Link, Springfield: I have listened with much pleasure to this most excellent paper of the essayist. It is of interest to note his preference to the Kocher method of operating in these cases of oblique inguinal hernia. From the tone of the paper, I take it that the per cent of permanent cures in the doctor's cases has been better by this method than by the method of Bassini. Kocher of Berne reports but four per cent of relapses in more than one hundred cases. Again, the anatomical structures are not disturbed in their relationship by the method of Kocher, as stated by the essayist.

There is just one point that I wish to mention on this subject. At the last meeting of the American Medical Association, Dr. Harvey Cushing of Johns Hopkins University, Baltimore, discussed this subject chiefly from the standpoint of relapsing hernias. His clinical studies and observations of these cases have led him to believe that not enough attention is paid to the preservation of the nerve supply in operations of this type, when we consider that beneath the fascia of the external oblique muscle we have two main trunks of the nerves, viz., the inguinal branch of the ilio inguinal and the hypogastric branch of the ilio hypogastric, that supply both the internal and external oblique muscle.

Dr. Cushing's clinical researches have convinced him that relapses are due chiefly to the neglect of not paying enough attention to the nerve supply of these muscles. Cutting or constricting any nerve produces an atrophy in that vicinity. Again, it has been my experience, in one of my first cases of oblique inguinal hernia operated on, that the patient complained of some pain for five or six days following the operation, probably the result of a constricted nerve. If there is any one of the many operations devised for hernia of this type that, in my judgment, deserves to be condemned, it is the one devised by Dr. Dawbarn of New York. He transplants the cord and testicles beneath the skin. This operation is, in my judgment, as irrational in principle as though he were to do a complete castration.

So far as the various operations for inguinal hernia are concerned, I believe that, while many operators still continue to use the method of Bassini, many others adopt the Ferguson operation. W. J. and C. H. Mayo report over 1200 operations for oblique inguinal hernia done according to Ferguson's method. Similar reports come to us from Drs. A. J. and E. H. Ochsner of Chicago.

I wish to thank the Doctor very kindly for his most excellent paper.

A DRUGGIST ON MORPHINE HABIT.

If doctors knew the harm done in indiscriminately prescribing morphine for pain and to produce sleep, I am sure they would hesitate to do so; but, after all, the greatest danger is in the constant refilling of prescriptions by druggists in which morphine is an ingredient.

In my own experience every case of morphine habit which I have been able to trace was formed through the use of morphine in a physician's prescription. I say in reply that unless instructions not to refill are written on the prescription I do not feel warranted in refusing to refill a prescription. If I did, the person who wanted it would be likely to go to the doctor with a complaint, and the doctor, instead of commending me for my prudence, would condemn my action and send the patient somewhere else with another prescription.

In the majority of instances the patient taking the medicine does not know that it contains opium in some form; he takes it, it relieves the pain or produces much-needed rest and sleep, and he continues to take it, ignorant of the harmful nature of the drug. This continues until a habit has been formed, and he hasn't the nerve force to break away from it.

I wish every physician in prescribing a narcotic drug would write plainly without my order," and "Do not give copy." Then the responsibility rests upon the pharmacist, who, however, will not risk losing a customer when refusing to refill a prescription, because he can show the doctor's instructions.—Medical Summary.

It is not necessary in all cases to complete a green stick fracture. The rule should be to correct the deformity so completely that there is no tendency for it to recur when the force of the surgeon's fingers is removed. Once corrected the deformity does not tend to recur.—Footc.

HEMORRHAGE FROM THE BLADDER WITH SUBSEQUENT PARALYSIS OF THAT ORGAN FOR THE PERIOD OF THREE MONTHS.

JOHN G. ALBERS, M. D.,
Fulda, O.

[Read before Ohio State Medical Association,
Cedar Point, 1907.]

I have not selected this subject with the intention to impart anything new or important to you in regard to diagnosis and treatment of a special disease. My object in this paper is simply to report to you a somewhat remarkable case of hemorrhage from the bladder.

The patient, an old gentleman, 88 years of age, came to me in June, 1906, for treatment of an aggravated bladder trouble, from which he had suffered for several years. He complained of frequent, painful micturition, and at nights had sometimes to get out of bed from four to five times to urinate.

Upon examination his general condition was found to be debilitated, his face was pale and haggard, his eyes dim and dull-looking; his bowels constipated, and he had little desire for food. Heart and lungs were in a normal condition, but slight elevation of temperature, yet no acceleration of pulse.

On introducing the catheter, the instrument readily passed into the bladder, but met with painful obstruction when pushed further up. The urine was alkaline, specific gravity 1020, and contained shreds of mucous membrane, pus and blood, but no albumin. The sediment of the urine stuck tenaciously to the bottom of the vessel and had an ammoniacal and fetid odor. Patient's mind was clear, nevertheless at times, he would sit for hours quietly in a chair and the expression of his face indicated that he was pondering over some secret troubles.

A diagnosis of chronic cystitis and ulceration of the vesical mucous membrane, together with enlargement of the prostate gland was made.

Treatment: The first thing to be done was to wash out the diseased bladder of the patient with sterilized warm water, followed internally by a thorough cleaning out with salines and cascara for a whole week. He then was put on acetate of potassium in drachm doses four times a day, for eight days. Next spts. etheris nitrosi in drachm doses conjoined with balsm. copaiba and nux. vomica four times a day and gr. v of Dover's powder, with gr. ii of quinine at bedtime. Farinaceous food and cocoa for breakfast, and

mucilaginous drinks—barley water—during the day. Aside from this a thorough irrigation of his bladder every other day was prescribed. At the end of six weeks' treatment, patient showed a noticeable improvement in his symptoms.

On the 22d of July he took a walk over the fields all the afternoon. When coming home in the evening, he complained again of his frequent painful urination, and told me that his urine appeared to be very bloody. He was at once put to bed, his bloody urine drawn, a teaspoonful dose of fl. extr. of ergot administered and cold compresses over the region of his bladder applied.

At 10 o'clock that night, notwithstanding the several doses of ergot patient had taken, and in spite of the cold application, the bleeding from his bladder was not arrested. Pain in the bladder and rectum more and more violent, and unbearable, patient was in the utmost misery, he lamented and moaned.

Again efforts were made to empty his distended bladder, which could be felt through the abdominal wall, as hard as a rock. I began with a gum elastic catheter, but to my surprise, the instrument met with obstruction at the neck of the bladder. However, I succeeded with a metallic catheter, and drew off about a pint of urine mixed with blood and pus, which afforded him some relief, but after a little while he again writhed in agony with pain.

As old as Mr. F. was—88 years—I ventured to give him one-fourth of a grain of morphin with five grains of ammonol every half hour, besides a cold water injection per rectum, and between times, half a drachm of ergot every fifteen minutes and renewing the cold application every five minutes.

About 12 o'clock at night patient went into a sound sleep. Late in the morning at 9 o'clock he awoke with a confused feeling that something terrible had happened to him. A cup of strong Java coffee and a drink of whisky gradually cleared up his mind.

Patient was now, after his bladder had been washed out with sterilized warm water, containing five grains of permanganate of potas., put on ten drop doses of the oil of erigeron every three hours.

The following morning, the 24th of July, he had an intense desire to urinate, and not being able to void a single drop, a metallic instrument was introduced and the urine appeared still loaded with blood and pus. Retention of urine had set in, which condition lasted for three months, and catheterization was necessary from four to five times within the twenty-four hours. As rest

was advisable, patient was kept in bed for eight days. His bladder was irrigated at first daily, then twice a week, and later on once a week, alternately with permanganate of potas., boric acid, bicarbonate of soda and tannic acid.

On the 15th of August patient's condition again showed some improvement, also his urine was found free from blood and pus. However, the paralysis of his bladder was as bad as ever.

At this time electricity over the whole area of the bladder every morning, together with flushing his rectum with hot water, massage to the prostate glands, and suppositories every night was added to the treatment. After a week or so patient's appetite began to fail, he lost strength, looked pale and complained that he felt tired. Under the use of quinine, iron and strychnin a betterment of his condition followed; but no relief in the retention of his urine.

September the first. Two months had now passed and, notwithstanding irrigation, electricity and internal remedies, no evidence of the slightest improvements of the condition of patient's bladder could be observed.

Yet, the same course of treatment was pursued with the only difference, however, that electricity was now rolled and rubbed over the space of the full bladder every morning; whilst heretofore the galvanic current had been applied over the area of the empty bladder, after the urine had been drawn and the bladder washed out.

On the morning of October 2 he came downstairs, holding in his hand a tincup full of urine, and told me that he had been able to pass a tincup full of urine at three different times that very night without pain.

Since then, the case progressed favorably. His urine was found to be normal in character. Urination from four to five times a day, and once at night, though the residual urine had to be drawn once a day at bedtime for one month longer.

Now the first question which presents itself is:

What pathological condition was responsible for the profuse hemorrhage from the patient's bladder?

The bleeding could not have been of traumatic origin, as for instance caused by passages of instruments, rude catheterism with rough and ill-cleaned catheters. I prefer a gum elastic catheter as giving less chance of mischief. In treating this particular case, the instruments were continuously kept in a basin, filled with fresh-boiled water, and before using, the catheter always was dried, wiped off with a solution of bichloride of mercury and then lubricated with sweetoil.

Neither could the bleeding have been due to vesical calculus, nor to renal disease; for patient was not afflicted with these maladies. More probably ulcers of the vesical mucous membranes had caused erosion of its vessels and consequently bleeding, or the enlarged prostate might have proceeded to suppuration, and discharged pus and blood into the cavity of the bladder.

As to the second question, concerning the subsequent palsy of the patient's bladder. In the surgical works of Dr. John Erichson we find the following passages:

"Paralysis of the bladder may occur with the opposite condition of retention and incontinence of urine, according to the part of that organ that has lost its contractility, when the body of the bladder is paralyzed, whilst the neck preserves its contractility, retention of urine will ensue, in consequence of simple inability on the part of that organ to expel its contents. When on the other hand, it is the neck of the bladder that is paralyzed, whilst the body of the viscus retains its contractility, the urine can not be retained, but dribbles away.

In this case the patient's bladder, when full of urine or water, stretched up into the abdominal cavity, felt hard and round, and on introducing the catheter the instrument not only readily entered, but the urine flowed out in a uniform stream, not being projected by contraction by the walls of the bladder. So, no doubt, the retention of urine was due to the palsy of the body of that organ. However, as to the causation of the palsied condition of the body of the bladder, we would not go amiss to suppose, that, in consequence of the extreme old age of the patient, simply a diminution of muscular power of the detrusor muscles had taken place.

In summing up, I am disposed to believe, indeed, I am almost convinced that the good result obtained in this case of the palsy of the bladder was due to the power electricity possesses in producing physiological changes upon living beings. In fact the battery has proved to me that the galvanic current exercises a specific action upon the muscular system as well, as it gives tone to the nervous system. Electricity, together with lavage of hot water, massage and suppositories to the enlarged prostate proved their value, and finally lifted the old man into the domain of health again.

In conclusion, I desire to express here my sincere thanks to Dr. C. P. Simons of Caldwell, and to Dr. Charles Foote of Cleveland for their generous advice they have given me in the treatment of this case.

DISCUSSION.

George Goodhue: I would like to emphasize the importance of a cystoscopic examination in these cases before any operative work is done for their relief. After ascertaining through chemical and microscopic examination that the blood is coming from the bladder, before we do an operation it is the proper procedure to have a cystoscopic examination made, because such hemorrhages are due usually to one of three forms of trouble, carcinoma, papilloma or polyp, and cystoscopic examination will determine whether or not it is a malignant growth. If it is a papilloma or polyp, it will not only tell us that fact, but will tell us exactly the location and number of such tumors, as was shown to me two years ago by such examination, where one papillomatous tumor was located at the entrance of the ureter, and the other, a small one, very near the neck of the bladder—so small and in such a peculiar position that had it not been for the cystoscopic examination it is probable we would have overlooked it entirely, greatly to the injury of the patient. I think such examination should always be made before we proceed to surgical measures.

T. W. Rankin: With reference to this question I may say that not all so-called cases of "hemorrhage from the bladder" are cases of "hemorrhage from the bladder," nor are all cases of hematuria dependent upon growths or foreign bodies either in the kidney or bladder. Aside from the well known causes of hematuria I believe that such a condition exists as the so-called "renal epistaxis" of Gull, as I have seen demonstrated in two comparatively recent cases by operation after cystoscopic examination, the operation proving futile so far as the localization or detection of any growth or foreign body was concerned. These cases both did well.

Dr. Lower (Cleveland): The causation of hematuria is the most important factor to be considered, and this is not always easy to determine. Out of 115 cases that came under my observation, the cause of the bleeding in sixty-five cases was from diseased conditions of the bladder. In fifty the source of the bleeding was the kidney. The principal causes of the bleeding from the bladder were papillomata, malignant tumors, foreign bodies, tubercular ulcers and enlarged prostates. In one case the papillomata were numerous, there being eleven distinct tumors in the bladder, some of them very small. Of the kidney cases, the causes of the hematuria were tuberculosis, malignant tumors, cysts of the kidney, stone in the kidney, and a number of cases of so-called essential hemorrhage of the kidney, to which no definite cause could be assigned. An interesting fact in my series of cases of hematuria was that more than 75 per cent. of them were painless, and there were no symptoms that would lead to the exact location of the bleeding. We must infer, then, that hematuria in the great majority of cases means some definite pathological lesion, and the source and cause of it should be sought before any prolonged treatment is instigated. The methods for finding the source, of course, are cystoscopic and urethral catheterization. No other method is definite.

Dr. Bunts: I wish to emphasize a point already referred to and, I think, a point overlooked in many cases; that is, those instances in which no growth of any kind is present and which are referred to as essential hemorrhage of the kidney, which means nothing but hemorrhage without discoverable cause. It is true, in operation on the kidney, a nephrotomy is usually done on the supposition that there is a stone in the kidney, and this results in a cure in a number of these cases, but I believe the pathological findings have shown most of them the subject of chronic nephritis. We must, therefore, bear in mind, in cases of painful hemorrhage from the kidney, the possibility of nephritis, and medical attention along that line should be given.

Dr. Curtis: I would like to mention a case I saw recently of hemorrhage of the bladder with a history of bleeding for three months when brought to me for cystoscopic examination. It revealed a badly congested trigone. The lamp of the cystoscope blew out, but I washed out the bladder with a boracic solution before and after the use of the cystoscope. The next day the hemorrhage was considerably less and the next still less. Acting on that suggestion, I washed out the bladder several times and the hemorrhage ceased entirely. It has been about six months and there has been no return of the hemorrhage.

Dr. Albers (closing discussion of his paper): I would say that the patient was not suffering with any of these diseases named, neither renal disease nor calculus, nor had he any lung trouble, and at present he feels well. He tells me he feels young again. Would it not be natural to presume that the ulceration of the vesical mucous membrane has caused erosion of its vessels and consequently bleeding, or, as I have said before, the enlarged prostate might have proceeded to suppuration and discharged pus and blood into the cavity of the bladder. I thank the society for having kindly discussed my paper.

Not more than two or three drops of a one per cent solution of cocaine should be injected into the urethra at one time.

As abscess of the breast has a strong tendency toward recovery, and the incision therefore does not need to be much longer than the diameter of the suppurating area.—*Foote*.

A small abdominal incision, a minimum amount of anæsthetic; the removal of the offending cause, and postural drainage, should influence the prognosis in suppurative peritonitis.—*Fletcher*.

Post-operative femoral thrombophlebitis occurs generally between the second and third week of a perfectly uneventful convalescence, and may follow perfectly aseptic operations upon patients for the most part free from septic infections at the time of the section or afterwards.—*Johnson*.

THE EFFECTS OF DYE STUFFS UPON THE SKIN.

W. L. LEFEVRE, M. D.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

That dye stuffs often have a deleterious effect upon the skin, is a fact recognized by all dermatologists, but why they have kept the knowledge such a secret, is unknown to me. This does not refer to the effects of dyes upon the skin of dye workers, for this is mentioned in most text books, but rather to the dye in the garment as worn next to the skin. A subject certainly of more importance, for few of us dye—d-y-e—and most of us wear underclothing of various hues. Possibly there is some excuse for those rainbow tints, in those parts that are semi-exposed, as for instance the ankle in men (men only), but who will offer a plausible reason for a black suit of underwear? Still within the past few days a dermatitis from this source was in my office for treatment.

Sometimes I feel that during my brief career of six years in this work, I have seen more than my share of this class of troubles. Most of these have been poisoning of the feet from colored sox. Sock makers recognize the difficulty of making a fast color and white feet are largely used. Because the feet are prone to perspire and cause the dye to run, or "bleed" as the dyers say, thus causing the poison to be absorbed, readily accounts for the majority of these cases. Then when you tell the patient this and charge him \$5 for the same, he will think the colored sock isn't the only thing that 'bleeds.'

A search through the text books at my command, including those of the Cleveland Medical Library, ranging from Dr. Daniel Turner's "Diseases of the Skin," 1712, to an excellent book recently published and purchased within the month, reveals one paragraph dealing directly with our subject. Found in "Cauty Diseases of the Skin," as follows: "Colored articles of dress worn next the skin are sometimes capable of producing somewhat similar results (referring to the action of irritants) when the coloring matter, assisted by perspiration, is sufficiently irritating.'

Our old master Hebra also says, Vol. 2, page 98: "Various articles of clothing, and especially those that are in immediate contact with the skin, exercise a similar influence both in producing eczema and aggravating it when present." And later, "Eczema of the forehead is rarely seen,

except when the result of some local cause, as the wearing of some article of dress."

Now, I trust the newer text books soon to be published by my colleagues here will not make this subject so conspicuous by its absence.

In looking over the Journal articles I succeeded a little better. In the Medical Record, September 1, 1883, Dr. C. C. Stockard reports a case of "Poisoning from Blue Stockings." Dr. J. G. Blake, Medical Times and Gazette, October 17, 1868, reports an interesting case of poisoning from red socks. The eruption appeared around the legs and feet in rings corresponding to the red rings in the socks. These were again worn later, after being washed, and the eruption again appeared.

In the Journal of Cutaneous and Genito-Urinary Diseases, Vol. 5, 1887, Dr. J. C. McGuire reports six cases of poisoning.

Dr. F. W. Putnam, Cutaneous Diseases, Vol. 4, 1886, reports a case of poisoning from a red undershirt. This concludes the literature on the subject.

The exact date of the birth of fabric dyeing is unknown. In Crook's Hand Book of Dyeing, we find: "In those portions of Asia, where at a remote period there existed a high degree of civilization, a somewhat advanced proficiency in the art appears to have been reached, especially in Phoenicia, whose capital city, Tyre, was the Manchester of antiquity, and about fourteen or fifteen centuries before the Christian era, became celebrated for the production and application of the famous Tyrian purple. According to Aristotle this dye was obtained from a mollusc, one drop being removed from a little reservoir in the throat. This was first lemon color, gradually turned sky blue and in a few days purple.' Ridpath states, in his history of the United States, Vol I, that Columbus, after his third voyage to America, sent back five ship loads of dye woods. This industry has always been one of interest.

Modern methods date from 1856, when Mr. W. H. Perkins discovered the process of making synthetical dyes from coal tar products. His beautiful color mauverene was a revelation. Since then some five hundred synthetical dyes have been made and sold commercially. These dyes in themselves seem to be comparatively harmless to the skin. Aniline dye workers do not seem to suffer from the effects. The German government, after thorough tests, permits the use of all except picric acid. Perhaps in garments it is more the "mordant" used to set the dye—

that is, antimony, tin, etc.—that does the harm. The perspiration test used as to fastness consists in placing the garment in a 25% solution of acetic acid. Analysis of the sweat collected from the skin show it to contain 99.3 to 99.5% water, the residue consisting of solid matter, among which are sodium chloride, phosphate of lime, hydrochlorate of ammonia, traces of iron and fatty matters.

A word more regarding "grease paints" as used in "make ups" on the stage may not be amiss. The following letter, written by the world's greatest "make up" impersonator, will explain itself:

W. I. LeFevre, M. D., Cleveland, O.:

Dear Sir: In response to your letter of inquiry relative to effect of grease paints on the skin. I use only the best and purest paints made in Germany—Leichners—by name. The American paints have been known to contain poisonous substances, leaving sores and blotches on the skin, but I always apply a foundation of the purest of cold cream on the face before making up, and when removing the paint at the end of my work, I thoroughly cleanse the face with alcohol and have never, in seventeen years' experience on the stage, suffered the slightest ill effect from the use of grease paints. The leading professionals, I believe, use only German paints. Many thanks for your letter. I remain,

Sincerely yours,

CHARLES L. FLETCHER,

In conclusion, let me make a plea for "the ounce of prevention" so valuable in eradicating this class of cases, and let us insist on colorless clothing next the skin if it isn't "all wool and a yard wide."

708-712 Rose Bldg., Cleveland, O.

DISCUSSION.

M. L. Heidingsfeld: Dr. LeFevre's interesting and excellent paper on dye stuffs recalls one clinical feature of considerable importance, and that is that there are many cases of dermatitis which can be traced directly on careful examination to some very commonplace conditions. It has been my privilege to encounter a number of severe eczemas about the face and neck which have been caused by the use of Mrs. Potter's Walnut Stain for the hair. In some cases there were repeated attacks following each application and very severe in character. In one of these cases, after the patient had been informed of the probable cause, she persisted in using the preparation on two subsequent occasions, each of which was followed by a most intense dermatitis. The cause of the dermatitis from a preparation of this character lies probably in the irritating character of the coal tar product contained in the preparation or possibly, in at least some cases, to wood alcohol, with which many of these preparations are adulterated. I have also encountered many cases of severe intractable eczemas about the neck, the cause of

which could be readily traced to the wearing of new furs, the majority of which at the present day are colored with artificial dye stuffs. In many of these cases there were also repeated attacks of dermatitis after the cause had been pointed out to the patient by their persistence in wearing the furs as soon as recovery ensued from the preceding attacks.

DETECTION OF CALCULI OF THE KIDNEYS AND URETERS BY MEANS OF THE SKIAGRAPH.

KENNON DUNHAM, M. D.,
Cincinnati.

[Read before Dermatological Section of Ohio State Medical Association, Cedar Point, 1907.]

In preparing any paper the author must choose one main subject and try to make that clear. In the preparation of this paper I have been much concerned as to what should be my subject.

Two ideas presented themselves; first, the necessity of an X-ray examination; second, the best method of making it. You can plainly see that a choice depends entirely upon the attitude of the audience.

If you will believe that what I have to say is true and is not the ravings of a radio-maniac, then I am sure that any intelligent body of men, such as this, must be convinced that a surgeon is not justified in operating for renal or ureteric calculi without a careful X-ray examination (except in emergency). For this examination aims to show all or part of the following, without injury to the patient, viz.: the number of stones, their size, position and chemical character. Incidentally we are often told much of the pathology of the kidney and shown areas of inflammation and suppuration. In the case which Dr. Smith will report we found the stone located in the pelvis of the kidney, in size a little larger than the head of a lead pencil, of mixed salts and but the one. We were able to detect on the plate some pathological lesion between the kidney and the spine, and Dr. Smith found the kidney down by adhesions, which explained this.

This is but a case in point to prove my statement as to the necessity of an X-ray examination.

We can now turn to our second subject and consider the best method of making this examination.

K. K., male, age 27, woodworker in a piano factory, of German parentage. Never been sick, and denies all venereal diseases. Family history negative except that his mother died of cancer of the stomach at the age of 37 years.

Three years ago the patient noticed that his

urine was very dark at times. He consulted a physician, who told him that the dark color was due to blood in the urine, but did not give any explanation as to the cause of the hematuria. After about two months of this dark urine the patient noticed nothing more until April 15th of this year, when he observed that the urine was almost "as black as strong coffee." He had not lost weight, appetite good, strength normal. He was able to perform the duties of his occupation the same as ever.

On June 25th, he consulted me for the blood in the urine. This was the only symptom of which he complained. He had with him a small bottle of urine, which he had passed earlier in the day, that was chocolate in color. Urine passed in the office showed a slight reddish tinge, but was not marked. Microscopic examination of the centrifuged sediment showed abnormality except a few red blood cells. Although I examined the urine several times as it was passed in the office, at no time was I able to find large quantities of red cells in it. He would report having passed the very dark urine every two or three days, but it did not seem to bear any relation to exercise, as it was sometimes present in the first passed in the morning, and sometimes it would appear late in the afternoon. At no time were there clots in the urine.

Palpation of the kidneys brought out nothing abnormal. Three careful cystoscopic examinations revealed an absolutely normal bladder. I was never able to make an examination when the active hemorrhage was on so I could not determine from which kidney the blood was coming. I did not think it advisable to make a ureteral examination with the ureteral catheter until the X-ray examination had failed to throw any light on the case. I referred the patient to my colleague, Dr. Kennon Dunham, for X-ray examination, and he has shown to you the result.

He assured me positively that there was a soft calculus in the pelvis of the right kidney, and that when I operated I should look for some inflammatory condition in the region of the pelvis of the kidney, or between the lower pole of the kidney and the vertebræ.

On August 7th, I removed this calculus from the right kidney through the oblique lumbar incision, extraperitoneal. I found in releasing the kidney from its surroundings that there were many adhesions about the lower end of the kidney so firm that portions of the renal capsule were torn off and rather free hemorrhage occurred from the surface of the kidney. The stone was held fast to the posterior wall of the pelvis, and

probably never attempted to enter the ureter, which no doubt accounts for the absence of pain. The kidney was replaced, the incision closed without drainage, and the patient made an uneventful recovery.

The points of special interest in this case are: (1) the atypical occurrence of the blood in the urine, bearing no relation to exercise; (2) the total absence of pain, and (3) the value of the X-ray examination in locating the offending object. It is a great relief to the operator to have positive knowledge of the presence and location of the calculus before he begins the operation.

DR. E. O. SMITH,

19 W. Seventh St., Cincinnati, O.

Before taking up the technique, let us consider the X-rays in a general way.

It is a common opinion among the profession, fostered by the manufacturers, that given the latest apparatus, anyone is able to take a picture. This is not true in the first place. In the second place they would not be able to read the plate intelligently, unless they had made a careful study of such plates. In the third place they do much harm to the patient by burns, and to the profession by depriving them of a valuable diagnostic agent, through fear for their patients.

The skiagraph is a silhouette which shows the differences of density of the objects which cause the shadows. It is by carefully studying these differences of density that the Roentgenologist is enabled to read the history of his case. As you know a hand in front of a lamp behind a sheet can be made to look like each of the barnyard animals in turn, so the shadows upon the plate from the X-ray can be distorted. A ring can be made to look like an ellipse or a straight line. The angle at which the principle rays strike a plate must be accurately known or it will be impossible to make an intelligent reading. The pathological findings as enumerated above are only recognized by patience, technique and brains, not by machinery.

There is no part of the examination more important than the preparation of the patient. When possible I have him take oil the night before, salts in the morning and a high enema at least two hours before the exposure. Little food should be given after this preparation, and certainly not milk.

As the skiagraph is only a shadow it is evident that if you desire a clear shadow, the plate, the patient and the tube must be absolutely at rest. Also it is evident that the nearer the object for which we are searching is to the plate the clearer will be the shadow. To accomplish this I have

the patient lay with his back upon the table with the plate under him, his knees and shoulders raised so that the lumbar curvature may be brought as close to the plate as possible.

The clearness of the skiagraph may be further augmented by having the rays come from as small a pencil of rays as is possible and by cutting out all extraneous rays. This in turn is accomplished by passing the rays from the tube through a restricting diaphragm and then through a lead cylinder. The lead cylinder, in addition to its assistance in cutting out the secondary rays, etc., further assists by compressing the parts, by bringing the back closer to the plate and by immobilizing the patient.

The kidney is known to move a great deal with the rise and fall of the diaphragm; therefore, the exposure should be made by several short exposures during which times the patient is trained to hold his breath. For a complete examination five plates are exposed—one over each kidney, one over each ureter, and one through the pelvis. The latter to examine the bladder and more especially the ureters just before they enter the bladder.

The direction of the rays is most important. For the kidney plates the principle rays are directed upward from just below the costal margin so as to reach the plate at an angle of 75 deg. These plates should have the spine on their inner margin. It is better, I think, if the rays are also directed slightly outward as well as upward. Thus the obstacle to which Dr. Howard Kelley called our attention several years since is overcome, viz.: that the kidney sometimes lays much higher than we expect.

The ureters are exposed by directing the rays normally to the plate and much of the spine is taken in each exposure. The last exposure for the lower ureters and the bladder is the most difficult to take and to understand. The plate is placed beneath the patient with its lower margin well below the coccyx, the rays are directed toward the plate from above the pubes at an angle of 70 deg.

The kidney plates should show the transverse process of the first, second and third lumbar, twelfth and part of the eleventh ribs, the upper portion of the psoas muscle and possibly the kidney.

The ureter plates should show the third, fourth and fifth lumbar and the sacrum.

The bladder plates should show the sacrum, coccyx and inner aspect of the pelvis.

If these plates are taken correctly even inflammatory tissues will throw a shadow which must be explained and a calculus is easily detected.

There is no part of this technique so important as the selection and regulation of the tubes, but here I cannot instruct you. This only experience teaches. I have been able to interest Dr. Allen, of the University of Cincinnati, in the construction of an X-ray meter which has just been completed. Possibly when we have carefully measured our tubes we will be able to tell each other more accurately how we get our effects.

The time of exposure must vary according to the character of your tube, the power of your coil, and the size of your patient. This varies among our best radiographers from fifteen seconds to five or six minutes.

After the exposure is made the next step is the development of the plates. There are only a few rules which I lay down: Develop slowly, keep away from the dark room lamp, wash thoroughly and pay close attention to the temperature of your developer, fixer and wash water. All developers are good. Learn to use one and learn to stick to it; many plates are spoiled by trying the other fellow's method. When your plate is washed it must be dried. Much may be seen on a wet plate, but no one is justified in making his diagnosis until each plate is thoroughly dried. There may be more than one lesion. When dry, the plate must be examined very carefully from different distances, by different lights, and at different angles. An illuminating box with a rheostat is indispensable and the daylight should not be neglected. Often an opera glass will bring out a shadow which otherwise would be overlooked. As with the microscope the eye must be trained for what and where to search; so with the skiagraph.

In the kidney plates, having found the transverse processes, the twelfth and eleventh ribs and the upper part of the psoas muscle, we search for the delicate shadow of the kidney and for any evidence of inflammation. If the plate is well taken and no suspicion of a stone is shown we are fairly safe in excluding that region. Usually on these plates the stone is found either in the pelvis of the kidney or the upper 2½ inches of the ureters, sometimes in the calyx of the kidney. If found in the substance it might be well to be prepared at the time of operation to assist the surgeon further by a fluoroscopic examination of the kidney. Often the blood vessels will permit the removal of the kidney to a sufficient distance to allow this. Many cases of undoubted kidney stone have not been relieved because of our inability to search for a small object in an organ which has so much length, breadth and thickness. You all know the stories of the needles in the hands, etc. Asepsis would be difficult to maintain but could be mastered.

The ureter plates show the spine with their transverse processes and the psoas muscle. If the calculus is in this picture it is usually at the brim of the recent pelvis and shows on the plate below the transverse process of the fourth lumbar. At the operation you will find it just over the bifurcation of the iliac artery.

In the bladder plates it is usually in the ureter just above its entrance into the bladder. The exposure which I recommend throws this portion of the pelvis onto the plate lower down and the shadow is seen to the side of the sacrum or coccyx. The bone does not conceal its shadow.

Thus we find ureteric stones principally in three locations. This is due to the anatomical narrowing of the ureters. The first narrowing is about $2\frac{1}{2}$ inches from the pelvis, and has a diameter of about $\frac{3}{25}$ of an inch. The second is near the brim of the pelvis as located above and here the diameter is a little larger, about $\frac{4}{25}$ of an inch. The third is just above or in the bladder wall and is only $\frac{1}{10}$ of an inch in diameter. Thus Kassabian (page 356) reports "35 stones caught in the first isthmus, 18 in the second, and 73 in the third." Thus the greater the narrowing the more stones caught.

The subject of stones in the bladder will be dismissed with the statement that the diagnosis is easily made if desired.

After all has been said as to the proper technique of skiagraphing the kidneys and ureters there still remains many chances of error, which may be classed in two groups, those which are avoidable and those which are not.

In the first group we find unremoved fecal matter. This may largely be avoided by the proper preparation of the patient and by the character and location of the shadow as seen on the plate. It will seldom appear on a second plate. Both Pancoast and myself have had salol tablets given to a patient after he had been prepared. These tablets do not easily dissolve, but show good shadows. Not suspecting the error we were both deceived; but luckily neither case went to operation.

Phleboliths, also found in this group, are small calcified round bodies in veins. They are very common in the pelvis and are probably due to some inflammatory condition of the veins as a phlebitis. They are usually excluded by their location, but if the shadow of one should appear just over the tract of the ureter it may further be recognized by its shape and character. Its shadow is usually round and smooth. The shadow from a calculus is usually elongated and rough. If a phlebolith were mistaken for a stone

an operation would not be indicated because we most likely would expect it to be passed naturally.

Again if the angle of the principle rays with the plate has been faulty, or if the tube has been working poorly, the plate may be so poor that we might have to differentiate from a transverse process of one of the vertebra. This can usually be done by taking another plate, with especial care to the angle and the tube.

Also a plate may be imperfect or imperfectly developed so that such a spot appears as to excite suspicion. This is usually recognized by the trained eyes, but it is surely excluded by taking another plate.

Another error may arise by exposing a kidney over the rib instead of under it. In this way a calcified cartilage may throw a shadow which would appear as a stone. This is excluded by using the proper angle.

The last of this group is over-exposure. In this way you may cut through your stone and have no shadow. This can only be avoided by knowledge of the tube, which knowledge is only born of experience.

In the second class of errors, those which may not be avoided, we find calcareous areas in abdominal tumors such as fibroids. If such a shadow could not be excluded by its location or by its character, an error would be sure to follow. Dr. Leonard, of Philadelphia, reports a case of twisted ureter above which gravel has accumulated. This is another error, which should be classed as justifiable.

An enlarged appendix with a calcified tip has been found by Dr. George C. Johnston, of Pittsburgh, lying over the region of the ureter. This would be most difficult of diagnosis, but might be suspected because it would probably appear higher up than usual. If suspected it might further be diagnosed by exposing at different angles.

Prostatic calculi should give no trouble.

Thus we see that those errors which are unavoidable are cases for operation anyway, and our incision is not a crime. Those errors which are avoidable should be placed upon the head of the individual operation, and should not be charged against the X-rays as a diagnostic agent.

I believe that it is fair to say that all errors, both positive and negative, can by proper technique and judgment be reduced to 5% of cases examined. Certainly far below 10%. Dr. Lester Leonard, of Philadelphia, the pioneer of this country, claims less than 3%, and he has examined several hundred cases.

Comparing these percentages with those pertaining under our former means of diagnosis we find that the claims of even our most sanguine surgeons are far surpassed.

The certainty of diagnosis is not the only advantage gained, for given the exact location and number of stones, can often make a very simple operation out of what would otherwise be a serious one. Certainly it gives more confidence to a surgeon to have data by which he can accurately plan and prepare for an operation.

Another advantage to the patient (often regret to the surgeon) of this complete diagnosis, is that when the stones are found to be small we can afford to have a little patience and an operation may be avoided.

I do maintain that all cases of suspected renal and ureteric calculi should be subjected to a Roentgen ray examination, but I do not believe that a negative diagnosis should always stop an operation. The lesion might be due to many other pathological changes which would require surgical interference. Such as a tubercular lesion, etc.

In conclusion, I desire to emphasize three facts: That an X-ray diagnosis in cases of suspected renal or ureteric calculi is no longer optional with the surgeon, but is demanded of him; that such a diagnosis must be made only by one well qualified to assume the responsibility; and lastly, that these diagnoses should receive the utmost weight and consideration.

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- Herpes labialis often ushers in an attack of influenza.
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- A palpable tumor in the umbilical region is often a malignant growth of the transverse colon. Benign growths of the mesentery are also found here.—*Am. Jour. of Surg.*
-
- If the physical signs of pneumonia persist for an excessively long period, especially in children, it is wise to aspirate on the suspicion of empyema.—*Am. Jour. of Surg.*
-
- The presence of gall stones is merely incidental. We operate because the patient has chronic infective cholecystitis.—*Morris.*
-
- In many cases of tuberculous glands of the neck we can bring about a cure very rapidly by injecting each gland separately with one or two minims of iodoform and sweet oil (7% solution.)—*Morris.*

CORNEAL INFECTIONS.

T. F. BLISS, M. D.,
Springfield.

[Read before Cedar Point Meeting, 1907.]

I do not propose in this audience to discuss the etiology of the diseases of the cornea. You are all familiar with the methods of diagnosis, have had your individual trials with these diseases, have more or less matured from your own experiences routines of treatment that you have found adapted to your cases, and bringing to this gathering something of my own experience I hope that I may learn something of your methods and results that will be of benefit to me in my future work; for there is nothing in the wide domain of the physician's work that affects him more for good or ill, than success or failure in his treatment of the diseases of the eye that involve its integrity.

The eye is the gateway of the soul. The cornea is the open window, clear as glass, constantly swept and polished by the lids, moistened by the tears and guarded by the nerves that resent the slightest intrusion; it is ever exposed to injury from the countless accidents that may mar or destroy its usefulness.

The diseases of the cornea are local and constitutional. The scope of this paper will be of some of local origin that we often meet in our offices, that are the work of those living bacteria that seem at times to delight in defying our skill and ruining our reputations. Some of these germs we know by name, while some we only know by their works.

Those that we know may help us in diagnosis, but in the treatment of the disease or infection, it is the condition that confronts us and not a theory; and the ability to meet that condition in practice, rather than an academic knowledge of the special germ,—that is the test of the surgeon's skill.

As a rule local infections of the cornea follow a traumatism in which the infecting germ enters the wound with the foreign body that causes the wound, or, later, before the wound is healed; but the eye is almost immune from infection when injured by a sterile agent, and this is true not only in the case of minute foreign bodies that strike the eye and remain for a time, but of the major operations under proper aseptic methods, although the conjunctival sac is never free from bacteria. The most frequent injury of the cornea that comes to my office is from the bit of iron, emery, cinder or powder that is still lodged

in the eye. The removal of the foreign body is seldom followed by infection, and even in nature's process of throwing off an intruder of this kind by inflammation, it seems that the foreign body excites inflammatory action that blocks the margin of the wound against the entrance of vicious germs, and the healing process is established as soon as the foreign substance is removed.

I make this statement from my own personal experience with cases that came to me with a foreign body intact, but not of all cases that came with a history of having had something in the eye that had been removed by some expert shop hand with a toothpick, a silk handkerchief or some other equally villainous instrument; for nearly every case of this kind that I have had trouble with in the last twenty-five years has come with some such story.

A serious infection may follow wounds of the cornea with a pin, needle or the point of a knife, or even a splinter of wood, that penetrates farther into the substance of the cornea and evidently carries the infecting germ deeper; these may cause a local inflammation, and while the eye recovers in time it may lay the foundation for organic changes later.

The most serious infections that we will meet often are from slight erosions that we can not even see. The patient comes with the story of a bug or something of the kind hitting the eye while at work in the field or garden. Three of the worst cases I have seen were of elderly women who gave such a history. A day or two later the patient may have forgotten the incident, when a sharp pain is felt in the eye and the physician is consulted. He may see a little grey or yellow ulcer near the center of the cornea and, mistaking it for a foreign body, pick at it and send the patient away. This may be a fatal error, for tomorrow when the patient returns, or goes to some other physician, the ulcer may have extended; a yellow line showing us is seen in the anterior chamber and all the evidences of a serpiginous or rodent ulcer be in evidence.

The bacteria that have taken possession here are peculiarly virulent; and when they begin to send out colonies into the deeper layers of the cornea have a wonderful capacity for blocking up the pathways and alleys against our remedies; and, while we may clear away the debris, the fellows that are doing the mischief keep busy. As the margins of the ulcer break down on one side or the other, we notice a fissure instead of a spot. The yellow line in the anterior chamber rises from day to day, the fissure ex-

tends, radiating lines appear in the substance of the cornea and we see evidence of iritis; and the case may go from bad to worse. There is a constant watery secretion, possibly mixed with pus, not much swelling of the lids, some conjunctivitis, and a great deal of pain. If we may judge from the writers on diseases of the eye, the best men in the profession acknowledge defeat not infrequently.

The age and the physical condition of the patient may make the cornea more susceptible to cornea, even when there has been no known traumatism, and the disease be well established before the person is at all aware of it; and if the person is old beyond his years from secondary nutritive changes, due in the majority of cases to arterial sclerosis, the case may be very difficult to handle; and most infections after surgical operations on the eye will be in this class of cases.

Wounds of the eye made in the various surgical operations rarely become infected. The surgeon of today uses strict aseptic methods and guards against their infection, and is prepared to meet the first evidence of trouble; but when a virulent germ succeeds in getting a foothold, especially after a cataract extraction, and the inflammation gets beyond control, it will humble the pride of the most enthusiastic surgeon.

As all of these infections follow a traumatism, success in treatment should always be directed to the prevention of the entrance of germs into wounds, or their prompt distraction if already there. All of our recent literature is directed to this end, and if we could see all our patients early enough, destructive local infections would be practically eliminated from our work. But this can not always be the case, and we must be prepared to meet these things in every possible condition, and trust to our skill to meet them successfully.

In actual practice every corneal ulcer should from its beginning be regarded as dangerous, for the cornea seems to have no fixed standard of resistance, nor the bacteria of virulence. As a general rule, old age or a lowered physical condition will lessen the resistance, and not infrequently I have found that treatment directed toward building up the patient was more effective than the local treatment, or at least the case was at a standstill until general treatment was vigorously pushed.

At the beginning of an infection a bacteriological examination to determine the specific germ may be of great value in estimating the probable severity of the infection, but at a later

stage the virulence of the germ and the resistance of the cornea declared themselves, and more accurately than the laboratory can. In other words, make your laboratory examination early if for the good of the patient, and late if you wish to add to your knowledge of the bacteriology of corneal infections.

Infections with the diphtheria bacillus and the gonococcus are almost always secondary to the conjunctival infection. The safety of the eye depends largely on the integrity of the cornea, so we anxiously watch for the first sign of its involvement in these cases.

The pneumococcus infection is one of the most serious, and its early discovery is a warning to look out for serpiginous effects, and prepare accordingly.

The vast majority of corneal infections, however, are due to the ordinary pus germs, the staphylococcus, and as a general rule these are less serious and yield readily to mild treatment. If there is a foreign body in the cornea I remove it, after the use of cocaine, with a sterilized instrument. I use a dull cataract needle; then cleanse the eye with boracic acid, and if there is no suspicion of an ulcer, prescribe boracic acid and atropia and dismiss the patient with the feeling that he will have no more trouble. Most of these cases come with a bandage over the eye of more or less uncleanness. I send them away without one, believing the cooler air safer than the hot bandage and less likely to promote infection. Suspicious ulcers I curette and use boracic acid solution and atropia, and cold compresses as routine treatment, with such additional treatment as the case may suggest. For the most serious cases protargol has been invaluable, and later nitrate of silver. For external application I have largely depended on muriate of ammonia in solution, hot or cold, dilute camphor, and steam.

In regard to camphor I use it diluted almost to precipitation, on a pad of perhaps four thicknesses of cloth fastened to a pasteboard shield; this need not touch the lid and the eye can be opened under the shield, and the vapor is certainly cooling and very agreeable to the eye, and relieves pain.

The use of steam has many times seemed to have a marvelous effect in subduing inflammation in the most critical cases, and a very practical arrangement can be made for its use in any home where it is desired. The idea is to get a volume of steam at a temperature that can be borne directly on the eye and continue it from five to ten minutes as often as the patient wishes

it. The eye can be opened, the secretion is washed out, and the relief from the pain is often instantaneous.

This line of treatment will generally bring about the desired result. If, however, the pneumococcus has been the infecting agent and oblique illumination shows a haziness beyond the apparent margin of the ulcer, and a line of pus shows in the anterior chamber, then I believe that the actual cautery will do more to check the progress than any other therapeutic agent. The pneumococcus ulcer can not be depended upon to stay dead after you think you have killed it, and cauterization should be repeated daily if necessary.

Of chemical agents I prefer tr. iodine after curetting. I have had no experience with the new anti-pneumococcus serum.

If in doubt as to the extent of the denuded area of cornea a drop of fluoresceine will outline it; and in serpiginous ulcers, as well as in all severe inflammations of the eye, if the general physical condition is low, I have found quinine in fairly large doses of great value.

I have made the Saemisch incision with indifferent results; it is always painful and the patients object to it.

I do not think that I can add anything of value on the treatment of infection of the cornea after an operation on the eyeball, especially the operation for cataract. I have not found anything that can be depended on to cut short an inflammation of this kind after it is fairly established, but, if we recognize the gravity of the situation in the early stage of the disease, the actual cautery may be valuable and with the persistent use of steam or hot fomentations to preserve the vitality of the cornea much may be done, and possibly the loss of the cornea be prevented. I have lost one eye by suppuration of the cornea in the last one hundred operations, and all but two cases were in private houses and under a variety of sanitary and unsanitary conditions.

The involvement of the cornea in gonorrhœal ophthalmia must be prevented if possible; and nitrate of silver has always been my sheet anchor in this and in the ophthalmia of infants, although I have used protargol and argyrol with apparent benefit in a few cases after the violence of the inflammation had abated somewhat.

I have had little to do with these cases however, but have lost no eyes where the cornea was not already involved when the case came into my hands.

DISCUSSION.

D. W. Greene, Dayton: The paper is of value in that it brings to our attention a chain of cases which fortunately are not frequently seen, but about which we can not think too much. What they lack in frequency is often made up in virulence. The most cases I have seen have not come from foreign bodies themselves, but from infection in efforts at removal, just as Dr. Bliss has told us. One of the worst cases seen within the year came from an attempt to remove a piece of emery with a wire from a shop broom. The bit of emery was probably sterile when it imbedded in the cornea, and the same would have been true of small particles of steel or iron, the rapid revolution and great heat engendered by pieces of metal revolving in lathes being dressed down, drilled, etc., makes them sterile, but the wire from the broom infected the cornea in my case and great damage was done. Injury of any kind to the cornea in old persons should always be carefully looked after. The danger in such persons comes from mismanaged or neglected lachrymal disease and not from poor nutrition of the patient. As a rule, old eyes usually heal well after extraction. In fact, a very large per cent of our extractions are made in persons beyond fifty years of age. The high per cent of successes shows that age has very little influence in determining the result, notwithstanding that about 75 per cent. of all men beyond the age of sixty years show some pathological conditions. I have only made the Saemisch section once or twice. I can not conceive of any curative power that a section through the base of an ulcer can exert, that can not be better obtained by a paracentesis at the limbus if made early. The only successful way to treat infection after cataract extraction is not to have them, and this is not possible in all cases. I do not think I have ever seen a severe infection stop short of total suppuration of the cornea. Some mild infection I have seen remain confined to the lips of the incision and a macula result involving the upper one-fourth or less of the cornea which admitted of vision being improved by iridectomy or iridectomy down and inward.

As for the treatment of these conditions, I have very little faith in drugs or even the galvanic cautery. It seems to me the cases that we think we have cured are always mild ones, which in the nature of things would not have gone to the bad. The structure of the cornea and its lymph channels make it possible for germs to spread and diffuse through it more rapidly than we can destroy them unless we do as much harm to the cornea as the disease itself is likely to do. Having faith in the method which has demonstrated over and over again that a 2% solution of nitrate of silver will destroy the gonococcus in the conjunctiva. I always use it in corneal affections from other germs, sometimes in very strong solutions. In a recent case of phlyctenular ulceration of the cornea, in which six weeks of local and constitutional treatment failed to bring about a cure, two very light applications of a solution of 120 gr. to the ounce,

to the corneal ulcer and the fissure at the commissure, under chloroform narcosis, brought about a cure in a week, and after two months the child is still well. I have used all the newer substitutes for silver nitrate, but have found them bland, harmless and inefficient. Cold applications I always use, but have had no experience with the steaming methods Dr. Bliss advises.

THE TREATMENT OF PURULENT OPTHALMIA.

H. B. HARRIS, M. D.,
Dayton.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

In casting about for a subject to bring before the section, the writer could think of no other a careful and close study of which could result in greater benefit to the human race, as statistics show that thirty per cent. of the total blindness is due to this cause. Think of it—almost one-third; and this is all the more horrible and deplorable when we think how this ratio might be reduced if proper preventive and curative treatment were instituted in all cases.

Before proceeding farther the writer wishes it understood that, while admitting the other causes of purulent ophthalmia, as Klebs-Loeffler and Koch-Weeks bacilli, the staphylococcus, streptococcus, etc., the paper is confined to that of gonorrheal origin.

That there is a great difference of opinion as to the most efficacious routine treatment there is no doubt, and in the discussion which I trust will follow I hope the advocates of different treatments will tell why they prefer this or that method, as I shall endeavor to do in presenting to you the regime in which I have great faith.

Prophylaxis—The present high standard of obstetrical practice includes such cautious antiseptics before and during labor that the danger of infection is distinctly less than in former years, but still some preventive method should be employed. The eyes of those children who have passed through a birth canal known to be infected, or from which the suspicion of infection cannot positively be eliminated prior to birth, should be treated as follows: As soon as possible after the birth of the head the eyelids should be carefully cleansed, parted, and a twenty-five per cent. solution of argyrol freely instilled into each eye. Whenever infection or the suspicion of infection can be excluded, milder measures, for example cleansing the

lids and ushing the eyes with saturated boric solution, will suffice.

Treatment of Attack—Let us assume we have a case of purulent ophthalmia of gonorrheal origin. My routine management is as follows:

First, procure a competent and well trained nurse, if possible, to carry out the following directions: Wash the edges of the lids and lids themselves every half hour with a saturated boric solution and appoint the edges with sterile oil as needed to keep them from sticking together. Instill freely between the lids a twenty-five per cent. solution of argyrol, every one to four hours, according to the severity of the case. The solution sinks to the bottom of the cul-de-sac and floats to the surface the pus and mucous, which can then be removed with very little manipulation. When the cornea is razy instill one drop of a one-half solution of philocaprin once a day. Atropine to be used as needed if cornea becomes involved.

Complications and sequelae are treated according to the indications. Cold applications are not used at all, as the writer deems them dangerous. Specula, lid retractors and applicators are useless and often harmful, as the eye should be manipulated as little as possible and foreign substances kept from coming into contact with the cornea, as in its macerated conditions the slightest contact with the most delicate substance may produce an abrasion which constitutes a site for infection.

During my services in the Willis Eye Hospital in 1904 I noticed there was a great deal of contention over the question of the treatment of this malady, the question being whether or not the old nitrate of silver method could be improved upon by using some of the newer salts of silver. At that time I looked up the records of cases of ophthalmia neonatorum of gonorrheal origin and gonorrheal ophthalmia in the adult treated by members of the staff. Without going into details and burdening you with long tables, I will simply give the results of this work.

At that time all the text-books agreed pretty well upon the treatment of this disease, which boiled down amounted to the following: Cleansing, cold applications in stage of swelling, local applications of silver nitrate in stake of profuse discharge, solutions of bichloride of mercury, permanganate of potash, boric acid, etc. But a new era was about dawning and I think the text-books in the future will give these preparations more space. Some of those published since then have already done so.

All of these remedies except the silver were almost useless, so it had been exploited for years as the sheet anchor in the treatment of this disease. I found 100 cases of ophthalmia neonatorum of gonorrhoeal origin treated with nitrate of silver and 100 in which protargol was the only remedy used. In all of these cases the cornea were clear when first seen. In the group treated with silver nitrate, in seven the cornea were damaged sufficiently to interfere with vision, making seven per cent. of unsuccessful cases. In the protargol group two per cent. were unsuccessful in the same way. The protargol was used from five per cent. to twenty per cent. No unsuccessful cases occurred in those treated with ten per cent. protargol. The cases treated with silver nitrate were under treatment on an average of twenty-four days, while those treated with the stronger solutions of protargol were under treatment on an average of seventeen days.

I also consulted seventy-two cases which entered with clear cornea, treated with argyrol as the principal remedy. All of these cases were discharged with clear cornea after an average of eighteen days treatment. I also found eleven cases treated with argyrol in which there were already corneal lesions in which argyrol was used. In this group only one eye was lost.

From these cases it will appear that either of the above modern silver salts gave much better results than were ever obtained from nitrate of silver.

The argyrol was used in from fifteen to fifty per cent. The results from the twenty-five per cent. were just as good as from the fifty per cent. From the above it will be seen that out of 172 cases which entered with clear cornea, treated with the newer salts of silver, only two developed ulceration, and these two were in the protargol group where the solution was less than ten per cent. In eleven cases with cornea already threatened, treated with argyrol, only one went on to ulceration, and in ten cases in which corneal lesions had already developed only one eye was lost. These results show a vast improvement over the nitrate of silver treatment and speak well for the modern salts of silver.

The crucial test, however, of any remedy in gonorrhoeal ophthalmia is its application to the disease in the adult. As I do not want to consume any more of your time with comparisons, will simply say that in a large number of cases in the adult, collected at the same time, the results were greatly in favor of the newer silver

salts. The best results were had from the twenty-five per cent. solution of argyrol and the ten per cent. solution of protargol.

The newer salts of silver require very little care and manipulation, as they are devoid of destructive acids. Argyrol is non-irritating and has a slight anesthetic effect, a point much in its favor, while silver nitrate is very irritating and painful, always making the child cry. Crying congests the lids and their sharp margins are pressed against the cornea, which in their macerated condition are very easily divested of their epithelial layers. The proper application of nitrate of silver and washing off the excess requires much manipulation, which favors injury of the corneae with subsequent ulceration.

Another point which I wish to emphasize is the danger of cold applications in this disease. Every text-book, with perhaps one or two exceptions, which I consulted advised cold applications during the stage of swelling. It was plain, however, from the time allowed the cold or ice compresses by each author, that it was recognized that cold was unfavorable to the nutrition of the cornea. If this be true, a strong argument in its favor should be proven before it should be habitually used.

In the adult cases collected a comparison was made, in the cases entering with clear cornea, between those treated with cold and those in which it was not used at any time in the treatment, both groups being treated with the protargol and argyrol solutions under the same conditions. Those treated with cold showed fifty-seven per cent. of successful cases, while those treated without it showed seventy-six per cent. successful.

In the cases treated with cold it was not used because they were more severe, but because the attending physician habitually used cold. If used to inhibit the growth of the gonococcus, as many believe, it is very doubtful if the temperature of the cul-de-sac can be reduced enough to accomplish this. Neisser says their growth is inhibited when the temperature is brought below 86 degrees F. and it is very improbable that this can be done. If used to relieve pain, it seems a high price to pay if greater corneal destruction is to follow.

From the foregoing it would appear that the following conclusions can be deducted:

1. The application of the modern salts of silver is far easier, requiring very little manipulation of the eye, is safer, and produces better results than the application of nitrate of silver.

2. Either argyrol or protargol is an eminently efficient remedy in ophthalmia neonatorum

and gonorrhoeal ophthalmia in general, with the preference given to argyrol.

3. That the use of cold in these cases is dangerous and should be abandoned.

In looking up these records I followed very closely the plan of Dr. Miles Standish, of Boston, which he presented in a paper in the Ophthalmic Section of the A. M. A. in 1904, which I found to be a great help.

DISCUSSION.

D. W. Greene, Dayton: The remarks I made in the discussion of Dr. Bliss' paper in regard to the modern silver preparations expresses my belief as to their value in the form of trouble we are discussing. I said in the discussion of the other paper that for my own part, had found them bland, harmless and inefficient. At the Atlantic City meeting of the American Medical Association when some similar subject was under discussion (I cannot now recall all the facts) some gentleman from Boston, I think, said, from his experience we would get just as good results from thorough cleansing of the conjunctival sac with boracic acid solution and the very thorough test of these so-called substitutes for silver nitrate made by Drs. Derby and Verhoff, of Boston, confirms this statement.

The consensus of opinion is about what I have stated, in fact my remarks regarding their efficiency are largely the result of the discussions I heard there backed by considerable personal experience in their use.

In my judgment they are in no sense substitutes for silver nitrate.

C. F. Clark, Columbus: I want to say a word in favor of argyrol. I do not draw my conclusions from absolutely thorough-going laboratory investigation with bacteriological research, but from hospital experience where I have patients with all manner of infections. My general impression is that I get beneficial effects from it. I do not think it is a substitute for nitrate of silver. I use the nitrate under certain circumstances, but sometimes we want

to use something not quite so active or radical and argyrol serves this purpose and gives satisfactory results in hospital work.

I also wish to say a word in favor of ice and cold applications in these cases and in other cases of acute inflammatory troubles in the eye. I had an experience such as Dr. Weeks has described. In driving on the dusty streets I felt an irritation in my eye, and within one hour on attempting to read the eye became filled with a mucopurulent secretion, and within two hours I had a full, flowing purulent secretion from the eye. There was no one else at home and I immediately irrigated the eye with boracic acid solution and put on ice applications for two or three hours continuously and the next morning the eye was entirely clear and I was able to do my work. It is the personal illustration that helps me out. I use it in the early stages. It may be dangerous, like many other remedies which we use if used indiscriminately. But that ice retards the early stages of any inflammatory process does not really require the experience of a bacteriologist to demonstrate. It is retarded. Whether it inhibits the growth of bacteria does not matter. For practical purposes it certainly will limit inflammation. It must be watched carefully and I would disapprove of putting it into the hands of attendants not perfectly instructed. In corneal ulcer after cauterization, even in so bad a case as one in which we have done the Saemish operation for hypopion ulcer, I often find that for the first few hours ice is excellent, and for gonorrhoeal ophthalmia I find it indispensable. But in the later stages we should avoid it.

H. B. Harris, Dayton: I have been much pleased that the paper has brought out the discussion it has. While my experience, of course, has been limited to the cases mentioned. I cannot exactly seem satisfied in regard to the use of cold. My plea was against its habitual use and in the hands of less experienced people than these gentlemen. But I feel that we must all acknowledge that there is some danger in it, and its greatest advantage is the relief of pain, with the possibility of losing an eye. It would be well to do away with the cold and save one eye, and my feeling is that I prefer not to use it.

MEDICAL ECONOMICS

Self-seeking is lost in the work of medical legislation.

Legislation for the medical inspection of the public schools is neglected.

Will some one differentiate between the habitual news item advertising physician and the advertising quack?

The differentiation between physicians and nurse would become more difficult, if some proposed bills should be enacted.

It is the duty of the Secretary to send names of the newly-elected or re-elected Auxiliary Committeemen to the Chairman. Do it now.

The January meeting of the State and Auxiliary Committees on Public Policy and Legislation was well attended and accomplished good work.

Mr. Elson of the Ohio House of Representatives in defense of his non-medical healing bill afforded a sight for the gods, as a picture of lost statesmanship.

Tender sprouts in the political garden of Ohio were exposed to the frost of popular indignation when votes in the Senate were cast in opposition to the Pure Food and Drug Bill. It will pass upon its own merits in spite of trade interests.

Speed the day when the laboratories of the Ohio State University will produce antitoxin and other products of like character, following the example of the State of New York. Diphtheria antitoxin is produced at one-tenth the cost as compared with the price list of individual manufacturers.

The same old Foraker and blended whisky opposition to Pure Food and Drug Bill was reproduced in the Senate of Ohio. The people are a little slow in action, but when they do meet the opposition to the public welfare, small politicians are destroyed. The Harrigan boss is giving way to a higher order of statesmanship.

Students should be taught Medical Economics as well as surgery and therapeutics in order that they may maintain medical standards and ethics, that "rank imposes obligation" of promoting public health interests, and that the medical interests of the public are identical with the principles of medical organization.

The organized medical profession rests on: (1) The accumulation and diffusion of medical knowledge, and (2) Medical Economics, including medical ethics and standards, enactment and enforcement of medical laws, licensing boards, public health defense, contract work, medical colleges and societies. Medical organization requires that both branches receive due attention, in college curriculum, literature and society proceedings.

House Bill "1127 by Grinnell of Portage County, prohibits quack advertising and protects the moral integrity and refinement of home life by excluding publication of vile statements concerning sexual life and venereal diseases. This bill has furnished an opportunity for public sentiment to express righteous indignation.

The Knights of Columbus, the Y. M. C. A., the Woman's Federated clubs, and the Ohio State Medical Association, through their State and local organizations, are working for the enactment of this bill. Help it along.

NEW METHOD OF TESTING THE FUNCTIONS OF DIGESTIVE APPARATUS.

Einhorn (Therapeutic Gazette, January, 1908) submits a method for investigating the functions of the intestinal tract, the principle of which is the administration of test substances with the food and observation of the effects of the digestive fluids upon these substances.

Practically this test is made as follows: Patients are given, in a gelatin capsule, a string of beads with the following substances attached thereto: Catgut, fishbone, meat, thymus, potato, mutton fat. After administering the capsule, every stool is examined with the stool sieve until the bead string has been recovered. If diarrhea is present, the sifting may not be necessary, as the bead string can readily be seen, usually at the bottom of a glass vessel.

Under normal conditions the bead string appears after one or two days. It is then rinsed in cold water and examined. If digestion is normal, we find that catgut, meat and potato (except the skin) disappear entirely, thymus and fat almost entirely, whereas the fishbone usually disappears, but occasionally it may be present. The nuclei of the thymus always disappear. In pathological conditions deviations from the normal are observed, not only in regard to the time of recovery of the beads (disturbances of motility), but also in regard to the presence of the food substances (disturbances of the digestive function).

The author divides his cases of intestinal digestive disturbance into two groups: 1. Those of pure nervous intestinal dyspepsia. 2. Those of genuine intestinal dyspepsia.

In all cases of empyema following a primary pneumonia, or with tuberculosis of the lung, or so-called "idiopathic" empyema, and with communication into a bronchus, the best results are obtained by aspiration through a large needle for as complete an evacuation as the patient will tolerate; then inject two to four ounces of a 2% solution of formalin in glycerin. This should be repeated every three to seven days until the fluid ceases to be purulent. Then every three to five weeks until the fluid ceases to form. This same line of treatment cures an ordinary hydrops of the pleura in two to four injections.—Murphy.

Stelwagon recommends curettage and skin-grafting in obstinate X-ray burns.

A femoral hernia is never congenital; it is always acquired.

The Ohio State Medical Journal

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PORTO RICAN COMMISSION

We have the report of the permanent Porto Rican Commission for the suppression of uncinariasis in Porto Rico for the fiscal year 1906-1907, by Drs. Igaravidez, Martinez and Sein Sein, constituting the Commission, showing the reasons of the passage of the law under which they hold office; the work expected of them; how they divided and prosecuted it; and giving the results with much other interesting information.

They were required by law first to determine means of cure, and second to bring to use all prophylactic measures they might be able to command. That they might accomplish those ends the legislature appropriated \$50,000 for necessary expenses, salaries, hospitals, dispensaries, medicines, servants and incidentals. The sum was too small, but they expended it judiciously and, considering their task, the results were very gratifying.

In order to facilitate the labor they divided the island into three districts which were subdivided so as to suit convenience, and placed each minor division in charge of

a sub-commissioner, a physician appointed by themselves. All worked in harmony, apparently with enthusiasm, and with the hearty co-operation of the people, who rejoiced in the prospect of relief from their misery.

The importance of such movement becomes evident when it is known that of a total population of 800,000, 90 per cent. are affected more or less seriously with uncinariasis—nearly all of the "paisanos" or people living outside the larger towns, are infected with the hook-worm and are consequently anemic, enfeebled and more or less disqualified. Suffering and disability apart, the effect of a malady which incapacitates so large a percentage of the working population on ordinary business and the public welfare is grave in the extreme and very naturally attracted the attention of the government. The Commission correctly reasoned that as the infection is so general it was desirable to cure as many individuals as possible before attempting to establish what they denote ideal prophylaxis, but they worked along both lines simultaneously.

The endemic uncinariasis or anemia of Porto Rico is due to infection by the vermiform *necator americanus*, first described in 1903 by Dr. Stiles, of the United States Public Health and Marine Hospital Service. It differs morphologically from the uncinaria of Froelich (1780) and the *agchylostoma duodenalis* of Dubini (1843), and is peculiar to America. Like other parasites of its kind it is wonderfully prolific. The ova are never hatched in the human intestines, but pass with the feces to the ground, where, becoming mingled with the soil, under the influences of moisture and the heat of the sun the larvae quickly leave the shell and enter the human body through the skin and by ingestion with the food and water; in the larger number of cases in the opinion of the Commission, they gain admittance through the skin to which they readily gain access because the poorer people of the island never wear shoes and are neglectful of their hands. The Commission is of opinion also that the characteristic anemia of their island is not due to the quantity of blood drawn from the body by their parasites, but to toxins formed and secreted by them. Their opinion is based on the fact that they never found blood in the stools of their patients nor red corpuscles in the bodies of the worms.

During the year 1906-1907, 89,233 patients were treated. Of these 22,936 were cured; 15,507 were practically cured; 36,132 are still under treatment; 14,451 ceased to return for treatment; 193 died, and the records of 14 were lost.

Thymol and beta naphthol were used at all of the stations. Phosphate of soda in twenty to forty grains was given in the evening and at six o'clock the following morning a dose of the anthelmintic medicine (thymol) was administered, followed in two hours by a second dose of equal size, and two hours later a purgative of Glauber salt was given. The medicine was administered every two days. All of the directors

of the stations agree in considering thymol to be a more powerful anthelmintic than beta naphthol and that thymic acid never produced intoxication. Very few patients were treated in the hospitals, the great majority carrying the medicines to their homes where they took them in accordance with directions, and in no case with unpleasant effects.

Their experience with the oil of eucalyptus in a few cases did not permit them to make recommendations concerning that preparation, as recommended by Dr. Phillips. They consider it too dangerous, "all of the patients who took it suffering from dizziness, drowsiness, lassitude and some of them with retching and vomiting and fainting fits to such extent as made it necessary to administer stimulants to prevent a fatal result." They think it may be used in preference to other drugs when it is desirable to obtain the living parasite for anatomic and hemolytic experiments. Alcoholic extract of male fern was prescribed in a few cases only, with unsatisfactory results. In one case they gave 2½ and 4 grams in two doses which expelled two parasites as against 92.12 per cent. from beta naphthol.

Prophylactic measures adopted are personal and general. The Commission first aimed at the destruction of the adult worms in the intestines of affected individuals in order to arrest the production of ova which when deposited on the ground become active larvae to infect new subjects. This, of course, is to be accomplished only by the cure of persons harboring the parasite and it has been seen how this is accomplished. Second, to provide suitable places for the disposal of excreta so as to prevent the spread of the parasite and increase the number of places of infection. This is to be accomplished, of course, only by the construction of proper buildings and latrines, and in the absence of these, to teach persons to bury the excreta. The third object was to teach persons residing

in the infected district how to avoid infection. This is accomplished by personal cleanliness, care in the selection of food and water, the proper protection of the feet by shoes, and so far as is possible among the laboring class, protect the hands from injury and to learn cleanliness in their habits. It is difficult to change long-established habits, and in carrying out their ideas, the Commission has encountered more or less difficulty.

The report is exhaustive—complete in every respect, and an admirable and instructive document. The text is printed in English and Spanish, the authors evidently Spanish, are displaying the courtesy of their country by placing the English rendition first.

LEGISLATIVE WORK

The Legislative Committee reports that it has made excellent progress thus far, and that the agitation conducted by the organized medical profession bids fair to be fruitful of good practical results. Some of the bills endorsed by the Joint Committee on Public Policy and Legislation, at its January meeting, owing to the campaign of education, will become laws without further efforts of the Auxiliary Committee. The latter is now therefore concentrating its attention on a few bills, not because they are more important than others, but for the reason that they require a united and determined effort for their passage or defeat.

House Bill No. 1127, by Mr. Grinnell, of Portage county, whose introduction was unavoidably delayed until recently, is the most important measure demanding prompt and forceful efforts for its passage. It relates to the advertisement of cures for sexual and venereal diseases. Special emphasis should be placed on this measure, because quack advertising along these special lines is particularly offensive to home refinement and fruitful of fraud and evil to the public.

House Bill No. 1112, by Dr. L. McFadden, of Fayette county, is known as the "Venders Bill" to prohibit the sale of medicines and "Treatment" (viava) upon the streets or by house-to-house canvas. This should be linked to the quack advertising bill in your petition to legislators for its passage as only another form of the same evil and imposition upon the public confidence.

House Bill No. 405, by Mr. Hafner, of Hamilton county, authorizes the State Board of Health to establish a deputy State Health officer in each county. The virtues of preventive medicine and their importance to the public health service argue the wisdom of this bill.

House Bill No. 704, by Mr. Elson, of Tuscarawas county, proposes to endorse and license non-medical healing. It provides a State Board of examiners. Candidates are to be examined in anatomy, physiology and physical diagnosis, conditioned upon a preliminary preparation of a "common school education," and to receive the degree of "Doctor" or "Professor." There are 3000 petitions for the enactment of this bill. (See editorial page 369, February 1, 1908, A. M. A. Journal.) It must be defeated.

House Bill No. 879, by Mr. Hill, of Columbiana county, and Senate Bill No. 452, by Mr. West, of Logan county, provides for the burial of bodies of convicts unclaimed by friends, which would prevent the use of such bodies by medical colleges. This bill should also be strongly opposed.

The bill for the registration of vital statistics, father by the secretary of state, has not as yet been introduced. It deserves our support as it will not pass without it.

Every member of the Association should work for the Grinnell and McFadden bills in the interest of common decency, and endeavor to enlist the support of all good citizens. In Franklin county the co-operation of the Young Men's Christian Asso-

ciation, the Catholic Knights of Columbus, the Women's Federated Clubs, and the Ministerial Association has been secured, and such joint effort can and should be obtained in every county of the state. Petitions have been sent out to the Auxiliary Committeemen, and these should be circulated widely, not only among physicians, but among all good citizens, and sent in promptly to the representative of each district. The county societies should take an interest in this and reinforce the efforts of the Auxiliary Committeemen.

Personal letters to members of the legislature urging proper action on these bills will be of material assistance. The Central Committee, and members of the Association on the ground in Columbus, are doing their best, but their efforts will be very greatly assisted by the individual efforts of the members over the state.

CONTRACT PRACTICE

As this is the time of the year when contracts are usually entered into and renewed an article on "Contract Practice" in the journal of the A. M. A. of December 14, 1907, gives the following as the position of the railroad company:

"Surgeons are not employed by the railroad companies, for instance, for the sake of the individual employes, but purely because experience has shown the companies surgeons to be necessary. Another reason is that large corporations are frequently the objects of suits brought by employes for damages sustained through injuries. Experience has shown that it is necessary for a company to have a competent physician to represent it, and to make an examination and to report at the time of injury so that the company may have a record of the injury. If railroad companies, both steam and electric and large manufacturing concerns, etc., did not take such precautions they would suffer great loss and perhaps be even wiped out of existence by damage

suits in the course of a few years. Such protection is an economic necessity."

As is well known the companies in entering into a contract require surgeons to sign the same in which they bind themselves to render their services whenever called upon to any one employee or otherwise who may be injured in their shops, upon their right of way, or by their rolling stock, and to furnish a substitute in case of absence. To pay for these services many companies withhold a certain percentage of the wages of their employes and pay most of their surgeons in full by a pass good for transportation over the branch of the road upon which he may be located. These positions are usually offered and accepted by a busy man whose professional engagements are such that they can make little or no use of the pass so that they are practically giving their time and services to these corporations for nothing. When solicited to take these positions the agents of the companies will give as among the advantages for holding the same, the fact that the work will bring an acquaintanceship which will result in patronage to such an extent as to make up for the service rendered gratis to the company. That this is a fallacy any one who has had experience in this line of work can testify. For the employes almost uniformly expect and many demand that medical services and medicine be furnished themselves and their families and charged to the company and when these are not furnished they feel that they have been abused and bear the greatest ill-will toward the company's surgeon. Not only this, but those occupying higher positions as foremen and agents seem to consider it perfectly proper not to pay the company surgeon for services rendered to themselves and families, as their influence in their estimation in keeping the surgeon in his position and sending him the valuable railroad cases, in their minds, is enough to pay him for his trouble. The companies feel per-

fectly safe in continuing this system as long as they can find those willing to render their services upon such terms, and they will be able to find physicians to do their work until such a time as the members of the profession will understand thoroughly the disadvantages of entering into such contracts, or a united profession demands that adequate remuneration be given for this service.

Since the above was written a third possible means of terminating this abuse has appeared, and it offers the greatest hope, in fact almost the only hope, of putting a stop to it in anything like the near future at least. Representative Bense, of Ottawa county, has introduced a bill to prohibit railroad companies from paying for such services by the issuing of a pass over the road. This is a radical measure and if passed should stop the practice at once. It is to be hoped that the Legislative Committee will watch this bill carefully, and seek to secure its passage.

ENDORSEMENTS OF PROPRIETARY PREPARATIONS

The marvelous developments in the last few decades have produced new substances in great numbers and variety. In investigating the properties of these, many have been found to possess therapeutic qualities of considerable value, and as a result our pharmacopeia has unquestionably been greatly enriched. The financial attractiveness of the field thus opened however, has led to its commercial exploitation to such a degree that at the present time one is overwhelmed when confronted by merely a list of the new drugs offered us. The nomenclature employed adds to our embarrassment, for being intended to suggest the chemical characteristics of the preparations, many of the terms are actually meaningless.

In the beginning, as the first of these were produced, they were painstakingly and honestly studied, and qualities good

and bad were reported from clinical and physiological investigations. The rapidity of the production of the new preparations, however, precluded any further such studying, and an avalanche of scientific or pseudo-scientific literature appeared, usually wholly laudatory and the discriminating physician was unable to tell which had real claims of usefulness, and which were of little essential value. At this juncture the American Medical Association came to the rescue, and through its Board of Pharmacy tested the new products, approving the claims of some and refuting many, in short separating the dross from the gold, so that any physician may obtain a clearly expressed, scientific and impartial report of the properties of these substances and know what he is using. The sending out of this subsidized literature is therefore unnecessary and should be frowned upon by the profession at large.

The practice of writing these articles has been deprecated already for some years, and nowadays few if any program of medical meetings or real medical journals will accept them. They appear only in papers owned or supported by the proprietary interests, and are purely advertising matter. As this is pretty well recognized now, perhaps little harm is done, but the tendency is in the wrong direction, and "*Facilis descensus averni*!" To show the ultimate working out of the plan, we have before us an ordinary advertising dodger which was recently thrown broadcast over the streets of Columbus, announcing that the Golden Rule Rheumatic Remedy is "endorsed" by three "prominent physicians," etc.. On the reverse side are to be seen three supposedly autograph letters from physicians of Columbus (not one of whom is a member of the Academy, it is needless to remark) in which the virtues of the preparation are highly extolled.

It does seem extraordinary that in these days when so much is being said upon the

subject of patent medicines, that three physicians of any intelligence whatever could be gulled or beguiled into writing such letters, and to the unbiased observer it looks like a cash transaction of little credit to either side of the bargain.

Is it different in principle in reality except in degree, from many of the "write-ups" in the trade journals?

EDITORIAL NOTES

ANNOUNCEMENT.

The time for the annual meeting is drawing near. There are still several vacancies on the section programs. The secretaries will be very glad to receive applications for places and titles. Communicate with them at once.

The officers of the new Section on Pediatrics and Obstetrics are: Chairman, J. J. Thomas, Cleveland; secretary, J. M. Moore, Cleveland. All communications, requests for places on the program for the State meeting, etc., should be addressed to the secretary. As this is to be the debut of this section, let everyone interested in these subjects make a special effort for the success of this meeting.

In the December issue of the Journal by some mistake the paper by C. R. Holmes was headed by the caption, "Read before the Ohio State Medical Association, Cedar Point, 1907." This paper was not read at the State meeting, but had been accepted for publication last fall, and during the unavoidable confusion incident to the change of editors, moving the office, etc., the manuscript was placed among the Cedar Point papers and thus the error occurred.

It is a very great pleasure to welcome the appearance of the Journal of the Indiana State Medical Association.

This Journal made its debut the first of the current year, and in the two numbers which have thus far appeared it bids fair to take a prominent place among the best of the State journals. Experience has proven their value and those states which have been hanging back are now rapidly falling into line. Ohio in this, as in other matters, has demonstrated its progressiveness, and our Journal, now in its fourth volume, extends its congratulations and best wishes to our sister State.

To the County Secretaries:

The officials of the A. M. A. weekly write to the Secretary of this Association asking information in regard to names of members of local societies which have been certified to by the County Secretaries, but which are not upon the list of members in good standing furnished by this office. After more or less correspondence it usually transpires that these discrepancies are due to the fact that these members have been reported to us in arrears for dues, their names being therefore omitted from the list sent to the National Association; then some time subsequently they are reinstated locally, certified to the A. M. A., without any notice being sent to the State Secretary, or perhaps a mention of the fact is made, but the dues are not remitted, or again, a due notification may be sent this office with the statement that the dues *will be* sent in with the annual report.

Meanwhile we receive more letters of inquiry from the A. M. A., and sometimes indignant letters of complaint because the failure of these members to receive the Journal.

It must be remembered that the State Secretary cannot certify that members are in good standing unless their *names and dues* have been received. If any member therefore who has been in arrears, but has been reinstated locally, fails to be recognized by the A. M. A., or does not receive the Journal, the responsibility rests upon the local officials in the great majority of cases.

CORRESPONDENCE

The following letter was received recently by B. R. McClellan and furnished by him for publication as a graphic illustration of surgical conditions in the days when abdominal sections were a rarity and the surgeon who had the temerity to perform one was looked upon rather askance. The excellent picture of Dr. Dunlap accompanying the letter adds considerably to its interest.

Wilmington, Ohio, August 15, 1907.

To Dr. B. R. McClellan, Xenia:

Dear Sir—Mrs. S. Botkin has given the following description of the surgical operation performed on her by Dr. Dunlap, of Springfield, Ohio, on the twenty-eighth of September, 1869. The most of it will be from memory:

When I was forty my health began to fail. I did not know what was the matter, but thought it might be change of life coming on. There was an abdominal enlargement that I did not

understand and therefore I consulted Dr. Thorn, of Yellow Springs. After he examined the case he said I had scrofulous enlargement of the omentum, and there was no cure for it, unless he could stop the growth by treatment, which was sometimes done. I told him I thought there was water in that enlargement, but he thought not. He gave me treatment for several months, until I went to Michigan and was gone ten months. While there I consulted Dr. Watts, who said I had dropsy, but his treatment did me no good. I returned home and consulted Dr. Thorn again. He said he had

gry, but could not eat much, and occasionally when I commenced to eat, a pain would set in and I would have to leave the table for a time. Dr. Thorn gave me the tincture of assafetida for that. I had a burning sensation all over the abdomen, which was worse at night and for which I used a wet compress. I arranged with the doctor to have the operation performed at my home at Port William, Ohio. He said he or his son would stay with me until the ninth day, but he himself would stay the first few days. I gave him five dollars for the examination. He said he would charge three hundred for the operation. The doctor gave me a little book describing his work, and said he had examined four hundred cases of tumors and operated on forty-seven. Said he would not operate in any case that he thought the patient did not have a chance to live, or if he knew the tumor would grow again, as he was working for fame as well as money. Ten died of the forty-seven. He said there was much more danger for the patient when the tumor grew rapidly, as the system was so full of water that when the tumor was removed, vomiting or diarrhoea would set in which could not be controlled. Many of such begged him with tears to operate. He had some cases where the tumor weighed eighty pounds.

I wrote him that I was ready for him to come on the twenty-eighth of September, 1869. On the Saturday before he sent his son to see how I was getting along. He brought a bottle of muriatic tincture of iron for me to take several times a day until he came, saying that would cause the incision to heal by the first intention. That was all the medicine he gave me. On the twenty-eighth of September, Dr. Dunlap and son, and assistants, Thorn and Edwards, arrived at my home at Port William, Ohio, with several invited doctors, about eleven o'clock. The first thing he did was to have a dovetail bandage made. I suppose you know what kind of a bandage that is. He had everything taken to the room he thought he might need. I was dressed ready for bed, with a shawl around my shoulders, seated on the table in a reclining position, feet on a chair, a blanket over my lower limbs. Everything was now ready. He asked me if I would take a little brandy with him, and I told him I would if it was necessary. He handed me the bottle and I took a little and then he did the same. I was trembling a little. He said he was too. He then called in his assistants. He had a sponge large enough to cover my face, which was hollowed out and on which he poured



C. S. DUNLAP, M. D., Springfield, O.

come to the conclusion that I had an ovarian tumor, and advised me to consult Dr. Dunlap, of Springfield, Ohio, who had made a special study of that disease, and had performed several successful operations. I told him I would go and see Dr. Dunlap, and he gave me a letter of introduction. I went as soon as convenient and gave him Dr. Thorn's letter. After reading it he said he would examine the case and after he made the examination, said I had a tumor which he thought would weight twenty pounds, and advised an operation. He said he knew no cure but removal of the tumor, and thought it a very favorable case. I told him I would have it done as soon as I could get ready, and I would let him know when to come. The tumor never was painful until it was large enough to press the stomach, when it gave me some pain, and I don't think I ate a full meal for a year or more. I would feel hun-

some chloroform and then put the sponge over my face. I knew nothing more for a time. There were five ladies present, one of whom, my sister-in-law, will tell about the operation.

"The doctor exposed part of the abdomen and made an incision four inches long, five inches below the navel near the middle of the abdomen. He took the water out with a catheter, then drew the sack out through the incision. (They said the tumor was in the simplest form, only one enlarged cyst and he would take it to New York to the medical college.) He had a large needle, threaded with four strands of white silk for a ligature, which he put through the middle of pedicle of the tumor, tied a very tight knot, cut one end short, left the other long. He did both sides that way, then cut the tumor off, dropped those ligatures back in the cavity, the long ends out at the lower end of the incision, to stay until they should slough and come out, with instructions to pull them a little occasionally, which would cause them to slough quicker. He then put in a few stitches and strips of adhesive plaster."

I had come to so I felt one stitch, but that was all the pain I felt in the operation. (One of the ligatures came out in five weeks, the other stayed ten weeks.) The bandage was now put on, and ends looped from side to side, to arm pits, then fastened, and I was then laid on the bed on my back. The doctor said I must not try to raise up or turn or either side. I might draw my feet up and push them down and I might use my hands. I laid on my back six weeks and wore the dovetail bandage until the ligatures came away, then I had another kind of bandage that I wore six weeks more. I was sitting up and walking about the house before the last ligature came out. The old doctor drew my water while he stayed. The next morning after he had adjusted everything he went out to one of the stores. In a short time I felt that I ought to be tended to again, but knowing that he would be in shortly I thought I would wait until he came in. He came in a little bit but there had a little pain started up in the region of the bladder and went to the stomach. The doctor had to give me two hypodermics before I was relieved. I did not blame him, but false modesty; if I had called him at first I would have been saved all that hurting. They gave me one small powder of morphine each evening for five or six weeks at bed time which made me very comfortable. The bed got soft and all bad feeling vanished for a time, but in that time I had two pretty bad spells of constipation. Dr. Smith said he

feared morphine was the cause and thought I had better quit taking it, so I quit. I did not sleep much that night and did not rest so well for a good many nights, but had no more bad spells of constipation. The next mishap I had was an overdose of something good to eat. I had to change my nurse and the next meal I got too much, and did not get over that until I could stay up all the time.

My diet for three weeks was three crackers a day with a little chicken or squirrel broth. I sat on a chair at the end of three weeks to have my bed made up and I never missed a meal. The doctor performed the operation and work connected with it in twenty minutes. I have given you this little sketch from memory, so please excuse all blunders.

I was eighty-one years old the twenty-seventh of January, 1907; have been married twice, mother of five children, only two living. Have been a widow more than forty years.

(Signed) Susan Hussey Botkin.

January 3, 1908.

Editor Ohio State Medical Journal:

The writer desires information regarding any alleged recoveries or cures of inoperable or recurrent carcinoma of the mammary gland.

If any case or cases are known to anyone who reads this circular and can be authenticated by facts as to the history and condition prior to recovery and the length of time which has elapsed since recovery, such information will be much appreciated and duly acknowledged.

Any well-authenticated reports of recoveries from carcinoma located in other parts than the mammary gland will be welcomed.

Cancer paste cures, X-ray cures, radium cures, or cures as result of surgical operation are not wanted.

Hearsay cures are not wanted unless accompanied by name and address of person who may give knowledge first hand.

Address, HORACE PACKARD,
470 Commonwealth Ave., Boston, Mass.

CLEVELAND, O., February 20, 1908.

To the Editor:

Dear Doctor: In view of the fact that a considerable majority of the active members of the Ohio State Pediatric Society have recently by letter signified a decided preference for its affiliation with the new section of Obstetrics and Pediatrics of the Ohio State Medical Association rather than a continued existence as an inde-

pendent society, the officers feel that it would be unwise to attempt to arrange a program and futile to call a meeting of the society at Columbus next May, as previously announced.

Acting, therefore, with the advice and approval of former officers and members of the council, the officers of the society formally announce that there will be no meeting of the Ohio State Pediatric Society at Columbus next May.

As a section of obstetrics and pediatrics of the Ohio State Medical Association is now assured, it is hoped and urged that the members of the Pediatric Society will take an active interest in its meetings and work for its success.

As Drs. Thomas and Moore have been appointed chairman and secretary respectively of the new section for the coming meeting in May, they take this opportunity of inviting the hearty co-operation of every one interested in obstetrics and pediatrics to make the first meeting thoroughly profitable and enjoyable in every way.

It is urged that all who wish to present papers will communicate with Dr. Moore at the earliest possible date. Respectfully yours,

J. J. THOMAS, President.

J. M. MOORE, Secretary.

A PROFESSION, NOT A TRADE.

President Faunce, of Brown University, in a recent address before the Rhode Island Medical Society, says: "In two respects the medical profession deserves the grateful recognition and regard of all other callings in modern life. It has always been insisted that the practice of medicine is a profession, and not a trade. Trade is occupation for livelihood; profession is occupation for the service of the world. Trade is occupation for joy of the result; profession is occupation for joy in the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily, until something better offers; profession is occupation, with which one is identified for life. Trade makes one the rival of every other trader; profession makes one the co-operator with all his colleagues. Trade knows only the ethics of success; profession is bound by lasting ties of sacred honor."—Journal of the Medical Society of New Jersey.

Treves says: "If the mortality attending ovariectomy were to be increased three-fold beyond the present percentage, the operation would still be justifiable, inasmuch as the death-rate in untreated cases is so high as to leave but little

prospect of life. On the other hand, were the death-rate of hysterectomy lower by three-fold than it is, it would not sanction the performance of that operation on account of a small fibroid tumor which had ceased to grow, which produced no symptoms, but which the patient, as a whim, was determined to be freed from."

Billroth said: "Before deciding on the necessity for an operation, I always propose to myself this question: 'Would you permit such an operation as you intend performing on your patient to be done on yourself?' Years and experience bring in their train a certain degree of hesitancy."

"It is not the number of patients the physician or surgeon sees which makes his opinion valuable, but the sort of consideration he is able to give the individual patient. The ideal surgeon, therefore, seeks his early training in anatomy and pathological anatomy, in histology, physiology and pathology, in chemistry, physics and bacteriology, and thus prepared becomes the more successful in his encounter with disease. A like training is demanded of the physician, and the conjoint efforts of both are needed in the search for means of making future operations less necessary."—Reginald H. Fitz, M. D. LL. D., Boston.

INTEREST IN ORGANIZED WORK.

The professional man who shows no interest in the organized work of his profession is looked upon by every intelligent person as a man who either regards himself as superior to his fellows or who is afraid to meet them and discuss professional subjects with them. We believe this to be a true and just estimate, and the burden of proof to the contrary falls upon the man who always stays away from such meetings.—Editorial, Jour. Minn. State Med. Assoc.

CONCEALED GONORRHOEA.

Cases of concealed gonorrhoea in women may be determined by pressing the anterior wall of the vagina against the urethra. This will empty the urethral (Skene's tubules and bring to light a very small quantity of pus which is gonorrhoeal.—American Jour. Dermatology.

THE THUMB.

In dealing with infection or injuries of the fingers amputation should be a *dernier resort*. This is especially the case with a thumb, the most important of all the fingers.

CURRENT MEDICAL LITERATURE

In Charge of J. E. TUCKERMAN, M. D.

THE PROPER POSITION FOR THE APOPLECTIC PATIENT.

The Therapeutic Gazette (Nov. 15, 1907, p. 808), quotes Palmer to this effect: "Never let an apoplectic patient lie on his back.

In hemiplegia we get paralysis, on one side, of the muscles of the palate. When the patient is on his back the paralyzed muscles allow the tongue to fall back and diminish the opening into the larynx. Stertor ensues, æration in the lungs is obstructed, the supply of pure arterial blood to the brain, now more than ever necessary for the restoration of its functions, is prevented, the backward pressure causes still further distention of the cerebral veins and sinuses, cerebral auto-intoxication takes place, and the patient dies.

If the patient is now placed on the sound side, there is often little or no improvement. The paralyzed muscles fall down from the affected side and diminish the size of the opening as before, though perhaps to a less extent, and the stertor continues. The patient must therefore be placed on the paralyzed side; then the paralyzed muscles on this side will fall downward by gravitation, while on the sound side they will be held up by muscular action, and the largest amount of air possible will be able to enter the lungs. Stertor will cease; air will enter the lungs more freely; ærated blood will be conveyed to the cerebral arteries; while the cerebral veins and sinuses will be relieved of their distention."

In order to avoid bed sores it will be necessary to place the patient part of the time on the well side.

With patient reclining and heel raised, the leg is scrubbed with green soap and hot water; washed off with alcohol and dried. This position empties the veins and somewhat reduces their caliber. Private patients are best prepared by remaining in bed the day before and until the dressing is made.

"Having melted your dressing, and having it as hot as can be comfortably borne, apply it evenly over the foot and ankle with a flat brush about two inches in width; then with gauze bandages about two inches wide commence at the ball of the foot to apply after coming back about half-way over the instep, *always cutting off the bandage and starting over again, never reversing*; next take a few strips of the bandage and apply around heel and ankle. * * * Now, having the foot and ankle nicely covered, apply the dressing to leg and continue the bandage, but as the lower edge begins to leave the upper edge of the bandage below cut and start again. In this way you will have a smooth dressing from the ball of the foot to the knee."

A bandage may be applied over this in the usual manner to be removed as necessary for cleanliness. Such a dressing will remain one or two weeks; the next dressing may remain one month or more, but whenever the dressing becomes loose it should be removed.

When ulcers are present Royes says:

"First clean the ulcer, curetting when necessary, and if ulcers are very foul I have found the application of a wet dressing of a solution of picric acid, 30 gr. to the pint, for 24 or 48 hours, an excellent plan. Now prepare the leg as in the simple varicose condition. * * *

Apply the dressing right up to the edge of the ulcer, then cover the ulcer very liberally with a dry powder. I have used several dry dressings, but after long experience I have proved to my own satisfaction, at least, that these ulcers will heal faster and better under campho-phenique powder than any other. Now lay over ulcer about six thicknesses of gauze—six inches in size for an ulcer two inches across. Now proceed with your bandages and dressing, over all as in the former condition. When first applied, the above powder produces some pain, but before you have your dressing applied this will cease, not to return."

TREATMENT OF VARICOSE VEINS AND ULCERS.

Royce (Ill. Med. Jour., Nov., 1907, p. 487), outlines the treatment he has used for ten years and which he considers the best. He uses Unna's paste, which is as follows: Oxid of zinc, 4 parts; sheet gelatin, 4 parts; glycerin, 10 parts; water, 10 parts.

Dissolve the gelatin in the water, add the glycerin and stir in the oxid of zinc, all being heated in a water bath, and you will find it easily prepared.

[The commercially exploited powder was found, by the Council on Pharmacy of the A. M. A. (Jour. A. M. A., 1907, Vol. 48, p. 1365) not to conform to its published formula, which is the main objection to its use by physicians. Champho-phenique is an oily liquid obtained by triturating camphor with just sufficient (carbolic acid) phenol to liquify. Dusting powders may readily be made containing any desired percent of campho-phenique.—Ed.]

"The dressing on the ulcerated leg may be left on for ten days, and when it is removed you will be surprised at the amount of healing that has taken place. * * *

These are the reasons why this treatment is superior:

1. The soothing effect of the dressing, as the glycerin dehydrates the tissues and the oxid of zinc exerts a soothing influence, and the elastic yet equable support. We know that the blood vessels have resilience, which, if aided, will enable them to resume nearly their normal caliber.

2. The small number of dressings required and the long intervals which elapse between them.

3. Absolutely no loss of time to the patient."

In addition Royes claims the results are permanent.

Gauze bandages should be used. The paste will keep indefinitely, and only needs to be heated on a water bath at time of using.

MATRIMONIAL STERILIZATION.

The following clipping is reproduced from the Vermont Med. Monthly:

"Zola said, in 'Fecondite,' that there were twenty thousand women in France who for their own purposes had submitted to be unsexed. Even if this estimate, and the statements to the same effect by Leon Daudet, in 'Les Morticoles,' and by Camille Pert, in 'Les Floriferes,' be greatly exaggerated, it is certain that a large number of French women who wish to escape from the burden of motherhood find operators unscrupulous enough to 'sterilize' them. The following story, which is told of Tillaux, shows how much a matter of course such proposals must seem in a certain class of Parisian society: A married couple were one day shown into his consulting room. The lady explained the situation, saying that her husband and she were so entirely wrapt up in each other that they were anxious their matrimonial bliss should not be interrupted by the tiresome presence of a third person in the

form of a child; wherefore, she added, lowering her voice, her husband had advised her to place herself in the skilful and discreet hands of the distinguished surgeon. Tillaux was taken aback for a moment, but instantly recovering himself, turned to the husband, who was smiling approval of his wife's words, and said to him: 'That is a very happy idea of yours, sir; but as the operation is much easier, less dangerous, and more efficacious when done on the man, I am willing, if you wish, to perform it on you!' Needless to say, the offer was declined. The witty surgeon must have felt a malicious pleasure in seeing the selfish husband go forth a beaten, if not a better man.—British Medical Journal."

Since vasectomy is so simple a procedure as not to require a general anesthetic; since, also, it may be so done as to admit of a subsequent repair if desired (a minor consideration which, of course, does not weigh heavily), and since, further, such repair is not feasible in the woman, why not make the man who desires to escape paternity endure the *slight* mutilation, and not put all the too well-known inconveniences on the long-suffering woman? The answer of this surgeon cannot be too much commended.

THE TREATMENT OF SOME OF THE COMMONER DISEASES OF THE SKIN.

Ohmann-Dumesnil (Amer. Jour. Derm., Oct., 1907, p. 449), gives the following treatments:

Comedo is usually accompanied with constipation for which a pill of aloes is best given for several nights. Internally he gives:

℞ Acid. arsenosi gr ii
Pulv. piperis nigris..... ʒ ii
Ext. gentiænæ q. s.

M. et ft. cap. No. 60. Sig. One after each meal and locally,

℞ Acid. acetic dil..... ʒ iss
Glycerine ʒ ii
Kaolini ʒ iiiss

M. et ft. pasta. Sig. Apply at night.

Or the comedones may be forced out with a comedo extractor and a liberal application made of peroxide of hydrogen. These methods will insure good results.

For acne the general treatment is complicated. Affections of the stomach gastro-intestinal canal, kidneys, urethra, bladder, uterus and of almost all the other organs, including the nervous system, have been found to be causative factors in

the production of acne. It is here that a very thorough examination is necessary and there must be an effort made to correct the condition which is at fault. The difficulty of the task is self-suggestive and the success of a case depends upon that of the internal treatment.

Usually alterative treatment has a good effect and the best alterative and the one best adapted to the patient's condition is the one indicated. A generally good application is the following:

℞ Sulphuris precip..... $\bar{3}$ ss
Ung. aquæ rosæ..... $\bar{3}$ i
M. Sig. Apply thin twice daily.

A lotion which is one with a precipitate but very efficient and pleasant to use is as follows:

℞ Sulphuris precip..... $\bar{3}$ iv
Pulv. camphor.....gr. x
Pulv. tragacanth..... $\bar{3}$ i
Aquæ calcis
Aquæ rosæ, aa..... $\bar{3}$ iii

M. Sig. Apply two or three times daily.

In cases in which there are old, hard papules the following will be found useful:

℞ Hydrarg. oleat. 5 percent..... $\bar{3}$ ss
Sulphuris precip..... $\bar{3}$ ss
Ung. aquæ rosæ..... $\bar{3}$ i

M. Sig. Apply thin twice daily.

Hyperidrosis is to be treated as comedo so far as internal medication is concerned. A solution of the sulphocarbolate of zinc of about a strength of two percent will pretty effectually destroy the odor. This should be applied at least twice a day. Immediately after applying this solution and wiping the part dry, the following should be lightly applied:

℞ Resorcini $\bar{3}$ i
Spts. vini rect..... $\bar{3}$ vi

M. Sig. Apply lightly twice a day.

It will be found that this local treatment in conjunction with the general measures which have been indicated will prove successful. The treatment must be persisted in for quite a long time before a permanent cure can be expected.

[Formalin $\bar{3}$ i to O ii water will often stop excessive sweating of the feet if they be bathed in it once or twice a week, or every other day as found necessary.—Ed]

Arsenic, as with comedo, is used in herpes zoster.

Externally, in order to allay the pain, the following may be ordered applied, sparingly, three times daily:

℞ Atropine sulph-neutralgr. ij
Aquæ distill..... $\bar{3}$ ii
M. Sig. Apply thin three times a day.

If a powder be preferred, the following will act well besides having dessicating properties.

℞ Cocaine muriat.....gr. xv
Talci. veneti..... $\bar{3}$ i
Magnes. carbonat..... $\bar{3}$ ss

M. Sig. Apply to affected part and cover with cotton, twice daily. This treatment will result in a rapid cure of the eruption and also tend to abort it painlessly.

The treatment of itch or scabies is comparatively easy and is entirely local. The applications must be thoroughly made or a relapse is very apt to take place. A very good application which has stood the test of many years is:

℞ Sulphuris precip.
Olei cardini, aa..... $\bar{3}$ i
Saponis viridis.
Adipis, aa $\bar{3}$ i
Cretæ prep..... $\bar{3}$ iiss

M. Sig. Apply thoroughly once or twice.

A preliminary bath with green soap will act advantageously. A more cleanly method consists in first applying a saturated solution of hypsulphite of soda and when it has dried a one percent solution of muriatic acid. The latter precipitates very finely divided sulphur derived from the former and the use of these two solutions will cure the most severe case.

PLUGGING WITH SOFT TISSUE TO ARREST HEMORRHAGE FROM BONE.

Vaughan (J. A. M. A., Nov. 9, 1907, p. 1607), has found the usual methods including bone wax at times unsatisfactory. For five years he has used "the soft tissues—muscle or fascia—rubbed into the cut or broken surface of the bone. A fragment, preferably of muscle, is cut off wherever most convenient in the field of operation. It is then applied to the bleeding bone by means of the fingers or some suitable instrument like a spatula or flat chisel and rubbed hard so that the little vascular openings in the bone become plugged with minute fragments of soft tissue. The advantages of the method are obvious—that material is always accessible during the operation, it does not require special preparation, it acts not as a foreign body but more like a blood clot, and seems always to be efficient."

EARLY MANUAL TRAINING AN AID TO SURGICAL DEXTERITY.

While laymen are urging "trade schools," it is well to look out that manual training shall not be limited to the future artisan. In discussing the subject (*Jour. Amer. Obs.*, etc.), Carstens of Detroit said: "A good surgeon needed a very fine Italian hand. Students spent year after year sitting on benches, reading, studying, listening to lectures, and writing, but rarely or never developed manual dexterity. In order to make a good nimble surgeon, the hand had to be developed from the earliest youth. To make good, quick surgeons, they should start when they were children. They should learn to make baseball clubs, hatchets, and should be familiar with hammers and screws. They should know how to cut and chisel. In this way nimbleness of hand could be developed. It was the medical college the profession had to look to to help to make good surgeons, and in order to do that their graduates must be put in hospitals, carefully trained, and then in time they would become dextrous operators."

COTTON PRODUCTS THERAPEUTICS.

Though cotton seed oil is little used by the profession, in view of the fact that lately it has been recommended to take the place of other oils and fats in the treatment of consumptives, the following editorial statement in the *Jour. So. Car. Med. Assoc.* (Nov., 1907, p. 282), is very timely:

"We want to say here and now that the use of this oil in the treatment of tuberculosis is purely and simply empirical and based on no known therapeutic qualities of the oil save its fat content. * * * Furthermore, cotton seed and cotton products are dangerous in the extreme in their effects upon reproductive fertility—probably in respect to all mammals—causing sterility in both sexes, and abortion if taken in sufficient amount by the pregnant female. They are, we believe, among the most, if not verily the most, powerful of the oxytocics. We think these facts are known to comparatively few physicians, even in the South. But the old plantation darkey mammy has learned it and by their use has helped many a young black woman to dodge the pain and peril of parturition to the numerical detriment of the birth rate."

BOOK REVIEWS

A TEXT-BOOK OF MINOR SURGERY, FOR STUDENT AND PHYSICIANS, INCLUDING OPERATIVE TECHNIQUE AND BANDAGING. By Edward Milton Foote, A. M., M. D., Instructor in Surgery, College of Physicians and Surgeons (Columbia University); Lecturer on Surgery, New York Polyclinic Medical School; Visiting Surgeon, New York City Hospital; Visiting Surgeon, St. Joseph's Hospital; Consulting Surgeon, Randall's Island Hospitals and School; formerly Chief in Surgery at the Vanderbilt Clinic, New York City. First edition; 552 pages; illustrated by 407 engravings from original drawings and photographs. D. Appleton & Co., New York and London, 1908.

Foote says that minor surgery is not given the importance it deserves in the curriculum of medical schools. "And yet this neglected field of minor surgery is the only one into which the average practitioner will ever enter and is also the one in which most surgeons will find the majority of their patients. What wonder, then, that the physician, untaught and unread in minor surgery, fails to achieve good results and that more bad surgery is performed upon the hand than upon the organs of the abdomen?" And to this end Foote has given the profession a long felt want—a text-book of minor surgery whose teaching is essentially practical. The volume is well executed, the type large, the index excellent, and the subject matter conveniently arranged. The teaching is clear and aided by photographs of many lesions. The book will prove its claim to a well recognized and classical standing.

A TEXT-BOOK OF DISEASES OF THE NOSE AND THROAT. By Braden Kyle, A. M., M. D., Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital, etc. With 219 illustrations, 26 of them in colors. Fourth edition. W. B. Saunders & Co., Philadelphia and London.

Four editions in eight years is the excellent record of this work and speaks incontrovertibly for its recognition by the medical profession. Thirty or forty entirely new articles have been added, and numerous alterations and additions have been made to the text of the chapters of the former editions in order to bring the book strictly up to date and in conformity with the

latest developments of the nose and throat specialty.

The same systematic arrangement as in the other editions is followed, and the first three chapters are taken up with a good, practical introduction, embracing a review of the local anatomy, the methods of examination, instruments, etc., and a general consideration of mucous membrane, with their various types of inflammatory and degenerative changes in diseased conditions. Then follow eleven chapters on the various morbid conditions of the nose, embracing a very comprehensive account of the pathology, symptoms and treatment. The remainder of the twenty-four chapters are devoted to the pharynx and larynx and treats of these areas in an equally and thoroughly excellent manner.

The illustrations are excellent; the colored plates, of which there are several, are exceptionally good; the style is clear and graphic, and the general impression of the whole book is very satisfactory.

It is a work probably best suited to students and general practitioners seeking instruction along these special lines, to whom it is heartily recommended, but the well grounded specialist will also find many good points which will repay his effort in perusing it.

BLAKISTON'S QUIZ-COMPENDS. COMPEND FOR SURGERY FOR STUDENTS AND PHYSICIANS, INCLUDING MINOR SURGERY AND BANDAGING. By Orville Morwitz, B. S., M. D., Professor of Genito-Urinary Surgery, Jefferson Medical College; Surgeon to St. Agnes' Hospital, etc., Philadelphia. Sixth edition, revised and enlarged. Duodecimo; 334 pages; 195 illustrations. Philadelphia, P. Blakiston's Son & Co., 1907.

This "Compend of Surgery," while slightly above the average, has, in common with all volumes of its kind, a very feeble plea for existing. "The 'Compend' has been carefully and thoroughly revised by Thos. C. Stellwagen, Jr., and in all respects brought down to the requirements of the day—October, 1907." However, this statement is not in keeping with the text material, much of which is obsolete. No mention is made of Bier's hyperemia, Matas' operation for the cure of aneurisms, the local and hypodermatic use of sulphate of magnesia, X-ray burns, Mayo's method of operating for varicose veins, Moor-

hof's method of treating tuberculous joints and bone cavities, or the open treatment for burns. These are a few of the many additions that would have enhanced the work.

MATERIA MEDICA AND THERAPEUTICS, PHARMACOLOGY AND PHARMACOGNOSY, INCLUDING MEDICAL PHARMACY, PRESCRIPTION WRITING AND MEDICAL LATIN. A Manual for Students and Practitioners. By William Schleif, Ph. D., M. D., Demonstrator of Medical Pharmacy in the Medical Department of the University of Pennsylvania. Published by Lea Brothers & Co., Philadelphia and New York. Third edition, revised and enlarged.

This little work is another of the series of very practical pocket text-books brought out by those publishers. In reaching its third edition it has shown its popularity and that it will fulfill the purpose for which it is intended—viz, as a condensed, conveniently sized book on materia medica and therapeutics. It will be chiefly appreciated by students, though many a practitioner will find it advantageous for a hasty consultation. The present edition is somewhat larger than its predecessor and has been brought strictly up to date by the author. There are many valuable hints in the chapter on dietetics, and the therapeutic index to nerve remedies is of great assistance in these days of new remedies with such formidable names.

From a diagnostic standpoint an X-ray picture of the stomach after the ingestion of subnitrate of bismuth enables us to distinguish cancer, which appears clear against the shadow of the bismuth or is evidenced by the obtuse shape of the pyloric region.—Kümmell.

It was the mortality and complications of delay that placed the early operation for appendicitis on a sound surgical footing. To remove the disease while still in the appendix and before its rupture involved the abdominal cavity, was the logical conclusion.—Mayo.

Courvoisier's law, while not infallible, is of practical diagnostic import. "In cases of chronic jaundice, due to obstruction of the common bile duct, a contraction of the gall bladder signifies that the obstruction is due to stone; a dilatation of the gall bladder, that the obstruction is due to causes other than stone."

COUNTY SOCIETIES

FIRST DISTRICT

"The Hymen: Anatomically, Medico-legally and Historically Considered," by E. S. McKee, Cincinnati, was read before the Cincinnati Academy of Medicine December 16, 1907. The essayist described the origin and meaning of the word and considered the hymen, though frail, no doubt the strongest *signum anatomicum de virgo intacta*. He mentioned the different varieties of the hymen, their powers of resistance, weakest first as follows: Cribriform, semi-lunar, horse-shoe, annular, bilobate, imperforate. Microscopically, the hymen appears as a semi-lunar fold. Next most frequent is the annular variety. The thickness and consistence varies widely, from structures as delicate as a spider's web to that of a dense, ligamentous membrane, which persists through childbirth. It has been demonstrated that it is the male hymen which constitutes the eminence of the verumontanum. The author described minutely how to best examine the hymen so as to demonstrate it and not destroy it. He described the punishment in different countries for unlawfully taking the hymen. The manner of rupture of the hymen otherwise than by sexual intercourse was discussed. The hymen abroad was discussed, giving the manner in which it was considered in various foreign countries, ancient and modern. He considers the restoration of the hymen not entirely a myth and thinks it could be done by means of a plastic operation, but does not recommend the operation. He thinks the carunculæ myrtiformes due to childbirth ensuing upon the rupture of the hymen. They are the contracted remains of the lacerated hymen, made more prominent by childbirth. Watercolors showing fifteen varieties of the hymen were shown. The author related having read a paper before the Academy on this subject "twenty-three" years ago and named the officers of the Academy at that time and some of the members who were present. The former paper was widely quoted in the medical journals and also in Sajous' Annual of the Universal Medical Sciences and in a text-book on diseases of women by A. Martin, of Berlin.

entitled, "Bacterio Therapy; Its Principles and Application."

After considering in detail the underlying principles of this new line of therapy as introduced by Sir A. E. Wright, including the current views as to the exact nature of opsonins, he gave in brief the favorable as well as unfavorable results of the leading investigators. In three cases under treatment, he was able to report favorable results in two, one a pustular acne of five years duration, and another a case of persistent fistula following an operation for appendiceal abscess. In conclusion, he stated that in bacterio therapy we have a valuable aid in treating especially chronic and subacute local infections; that all cases do not improve under the treatment, and that if results be desired, the method of Wright must strictly be followed, including the preparation of an autogenous vaccine and determination of the opsonic index. For acute cases, further investigation is necessary, although some favorable results have been obtained. The paper was discussed by Drs. Oliver, Freudenberger, Carothers, Heidingsfeld, and Wyler.

F. L. Ratterman, in his paper on "Stomach and Intestinal Colic," read before the Academy of Medicine of Cincinnati January 13, speaks in a general manner of peristalsis and states that in normal peristalsis of both stomach and small intestines the muscles first relax and then almost simultaneously contract, and that as a single wavelike contraction from above downward; and, furthermore, that in the large intestines peristalsis occurs by the relaxation and contraction of the haustra in regular rotation from above downward. The essayist believes that the contractions normally in both stomach and intestines are not of the severity to retain the contents within the contracted area, as in colic, but allows part of it to regurgitate backward, as well as part to be propelled forward into the relaxed areas. Colic, according to the essayist, is but a violation of the rule of contrary innervation, which was accentuated by Meltzer, of New York, but spoken of earlier by Sherrington under the law of reciprocal innervation. According to Meltzer's idea, the single wavelike contraction of the proximal end of the intestines is simultaneously associated with a relaxation of the distal; or, if applied to the muscles of the arms or legs, the contraction of the flexor muscles of either

On February 3, at the Academy of Medicine of Cincinnati, Oscar Berghausen read a paper

arm or leg is simultaneously associated with a relaxation of the extensors, and vice versa. The contraction of one set of muscles is synergistic to the other—that is, acting together or in harmony with these muscles. Now, colic of both stomach and intestines, according to the essayist, violates this rule, in that the muscles of the intestines as well as the pyloric sphincter, or antrum pylori, tonically contract, while the intestinal or gastric muscles, immediately above this point, at first slowly contract in peristaltic action and then rapidly increases in intensity until it forces the intestinal or gastric contents against the antagonistically strictured muscle below, with the result that the contracting coil, immediately above the strictured area, dilates, and that to the extent of the quantity of the stomach and intestinal contents forced into it. The severe tension in the muscles of this area is so great that the nerves supplying them, although non-sensitive under ordinary conditions, are now abnormally irritated and awaken the symptoms of pain or colic. Many causes underlie the etiology of colic, as indiscretions in eating and drinking, heredity, climatic changes, gastric hyperacidity, constipation; constitutional poisons, as lead and uric acid; discent of stomach and kidneys, and diseases of the gall bladder, kidney, uterus and appendix. The essayist accentuates the importance for therapeutic reasons of differentiating colic from gastralgia, enteralgia, functional or organic strictures of the pylorus and intestines, ulcers of the stomach, cholelithiasis, nephrolithiasis, intercostal neuralgias, hernias of the lineæ alba, as well as inguinal hernias, obstruction of the bowel, appendicitis, perforation or peritonitis. In treatment, great stress is placed upon the necessity of recognizing, if possible, the cause, which, upon correction, frequently prevents future attacks, as well as relieves and generally cures the present.

SECOND DISTRICT

The fourth annual Second Councilor district meeting, held at Piqua February 20, was the most enthusiastic this district has held. The meeting was called to order by President J. R. Caywood at the elegant new Piqua Club house, and, following an invocation by Rev. John Montgomery, D. D., an address of welcome was made by Mayor Hughes, with a response by Horace Bonner, Councilor of the Second District. The first address was by D. W. Greene, of Dayton, on "The Value of Blood Pressure Records in the Diagnosis and Treatment of Diseases Dependent

on Arterial or Angio-sclerosis." After a brief review of the work done in this field and especially that of Janeway, and acknowledging his indebtedness, the essayist stated that his remarks would be based largely on his own observations in over 600 tests made under his supervision. He then took up the physiology of the blood circulation and called attention to the fact that the heart and arteries are not distinct, but together form a complex, rhythmically contracting, elastic system for maintaining the circulation at a pressure varying according to the needs of the organ to be supplied. The most elastic of the blood vessels are those of the splanchnic area, and sclerotic changes here cause great disturbances in the general arterial pressure. Arterial sclerosis is not necessarily accompanied by high tension. The sclerotic process, however, impairs the elasticity of the vessels and leads to hypertrophy of the heart muscle. This compensatory process may bring about a high arterial tension that may be considered physiological in certain cases. So many factors enter into this problem that no arbitrary degrees of pressure can be given as the normal—only certain lower and upper limits. Assuming that a pressure of less than 50 mg. of mercury is unable to sustain life, that would be the lowest limit, and regarding 145 mg. as an average normal in elderly people, pressures between this point and 160 mg. might or might not indicate sclerosis of the arteries. But 160 mg. is the upper limit, and all pressures above that point must be considered pathologic. Heart valve lesions are, of course, factors influencing pressure according as they are or are not compensated.

Kidney changes cause increase of pressure, especially in Bright's disease and in pregnancy. It is generally known that the arteries can withstand a pressure from within five times the normal pressure. The highest pressure that has been observed was 400 mg., in a case of brain compression. The highest of the essayist's observation was 300 mg., in a very old man. Some of the difficulties and errors arising from the use of the sphygmomanometer were dealt with. The speaker prefers the Janeway instrument, with a wide band, 12 cm. It is generally admitted that these sclerotic changes in the arterial system are brought about by the presence in the blood stream of toxins, either because these toxins are absorbed in too great quantities from the intestinal tract or the toxins of metabolism are not removed rapidly enough by the emunctories. In closing, Dr. Greene stated that the real object of his address was to call attention to a new instrument of diagnosis which promises to be of

great usefulness. Dr. Greene and his assistant then gave demonstrations of the use of the Jane-way instrument.

W. A. Galloway, of Xenia, spoke of the necessity of an early recognition of arterio-sclerosis, when much can often be done to correct the mischief by removing the cause of it. He called special attention to the factor of strenuous living, which, by its worries and anxieties, leads up to this condition in so many cases.

D. L. Hanson, of Cleveland, was the next speaker. His subject was "The Anatomico-Physiologic Basis of Pediatrics." He pointed out the fact that not enough attention is generally given to the relativity of size, function and position of the vital organs of the child to those of the adult. These differences must be taken into consideration if we are to expect good results from pediatric hygiene and therapeutics.

D. R. Silver, of Sidney, in discussing this paper, called attention to the necessity for careful medical supervision of hygiene of the child's school life.

F. P. Anzinger, of Springfield, spoke of the part the internal secretions play in the symmetrical development of both the body and the mind of the child.

A bountiful dinner was served by the women of the Presbyterian church. Short after dinner speeches were made by Dan Milliken, of Hamilton, B. R. McClellan, of Xenia, and J. H. J. Upham, of Columbus.

M. L. Harris, of Chicago, was the first speaker in the afternoon. His subject was "The Diagnosis of Some Surgical Conditions of the Upper Abdomen." Dr. Harris considered the relative infrequency of organic disease of the stomach as compared with those of reflex origin. He took the grounds that test-meal findings have been greatly overrated in the diagnosis of stomach troubles. Examinations made one, two or three or more hours after a test meal are valuable as indicating the motility or degree of dilation of the organ. The location of the pain, its character and duration, the interval of its appearance after taking food, are all important in the location of gastric and duodenal ulcers. The diagnosis of gall stones was dwelt upon at some length. Stress was placed on the necessity for early and accurate diagnosis in this region in order to secure good remedial results. The laboratory is a valuable aid, but must not be relied on too implicitly.

Dr. Harris was followed by L. C. Grosh, of Toledo, on the subject, "Some Clinical Mani-

festations of Cardiac Physiology." This paper dealt with the questions of rhythm transmission through the musculature of the heart and the various causes of its disturbance. The paper was a very able one, but too technical to be abstracted in this report.

Troy was selected as the next place of meeting, and the following officers were elected: President, J. S. Beck, Dayton; secretary, A. O. Messenger, Xenia; treasurer, Warren Coleman, Troy.

At the joint meeting of the Miami and Shelby County Medical Societies, held at Sidney the second Tuesday in January, the following was the program:

Essay, "The Effect of Heredity and Environment on the Mental Development of Children," E. A. Yates, Sidney; discussion opened by Dr. Hussey, Sidney.

At 12 o'clock dinner was served in the parlors of the M. E. church.

1:30 p. m.—Call to order in auditorium of the Central school building.

"Mental Unbalance of Children and Defects in the Present Methods of Instruction," Professor McVay, Sidney; discussion opened by Professor Cookson, Troy.

"What Medicine and Surgery Can Do for Backward and Defective Children;" discussion opened by Horace Bonner, Dayton.

The meeting was largely attended by both the profession and the laity. A number of citizens who are interested in health problems took advantage of the opportunity and accepted the invitation to attend both sessions. The first paper was short, owing to the illness of the writer, but it was sufficiently extended to bring out a very profitable and interesting discussion by Drs. Hussey, Hartman, Thompson and Rev. Patt.

After the first session, those present, with the wives of some of the city physicians, proceeded to the M. E. church, where a very excellent dinner was served. About fifty persons sat down to the spread, which was served in the best style of the culinary art.

Professor McVay's paper, read at the second session, met with universal commendation and should be published as a contribution to our knowledge of the subject.

The second paper was an excellent one and discussed most thoroughly the medical and surgical aspects of the subject. The discussion of

the paper by Professor Cookson and Dr. Bonner brought out every point in its true setting.

The meeting closed with a short address by one of our teachers, Miss Wilson, who gave an account of a visit to a school for defectives which she had inspected.

This effort of the Shelby County Medical Society to give a semi-public character to its meetings, at least once a year, was a success and is a beginning from which it is hoped much good will develop.

The Darke County Medical Society met in regular session February 3.

C. L. Bonifield, president of the State Association, was present and gave a talk on the subject of "Organization," and the great benefits to be derived from thorough and active co-operation and organization. A general discussion followed by Drs. Beebe, of Cincinnati, Bonner, of Dayton, and Rynard, of Union City.

Brooks F. Beebe then read a paper on "Traumatic Neurosis," which was very instructive. The paper was discussed by Drs. Robison, Ballinger and Rynard.

The matter of contributions to the legislative fund was presented to the society, and a motion prevailed authorizing the secretary to collect 50 cents from each member for that purpose.

Three applications for membership were received and recommended by the board of censors, and upon a call for a vote they were elected to membership.

A meeting of the Montgomery County Medical Society was held February 7. Eleven new members were admitted to the society. C. L. Patterson read a paper on "Rachitis," and J. B. Sampsell on "Post-Operative Conditions."

The Allen County Medical Society met February 4. The meeting place of the society was changed to the office of the Lima Progressive Association in the Masonic Building. The following program was carried out:

"Acute Inflammatory Rheumatism," E. G. Burton; discussion by Drs. Mumaugh, Kahle, Rudy, Bennett, Steiner and Burton.

The Allen County Medical Society met February 18. The following program was carried out:

"Refraction," A. D. Knisely; discussion by Drs. Bice, Steiner and Rudy, and closed by Dr. Knisely. "Nitrates," A. Pfeiffer.

Nine applications for membership were received and acted upon.

THIRD DISTRICT

The Logan County Medical Society met February 5. The following were elected to membership: W. C. Pay, Bellefontaine, and J. H. Wilson, Bellefontaine. The program was as follows:

"Complications and Sequelæ of la Grippe," J. S. Montgomery. Resolutions were passed in favor of creating the office of county deputy health officer, and asking members of the Legislature to vote and use their influence for the same.

For the meeting of February 20 the post-graduate work was as follows: "Anatomy of Lungs," Guy H. Swan. "Bronchitis," C. E. Huston. "Pulmonary Congestion," B. S. Leonard.

C. E. Huston, J. A. Wolf and E. R. Henning were elected censors for 1908.

The program for the Hancock County Medical Society for 1908 follows:

February 6—Don B. Biggs, "La Grippe;" R. N. Lee, "Pneumonia."

March 5—John M. Firmin, "Oponins;" A. J. Reycraft, "Jaundice: What It Indicates."

April 2—J. A. Kimmell, "Alcohol and Its Relation to Disease;" N. L. MacLachlan, "Colles' Fracture."

May 7—E. J. Thomas, "Blood Tests and Their Relation to Diagnosis;" J. V. Hartman, "After Treatment of Surgical Cases."

June 4—A. H. Linaweaver, "Anæsthesias;" J. C. Tritch, "H. M. C."

September 3—M. S. Williamson, "Summer Diarrheas: Causes and Treatment;" E. G. Hersh, "Puerperal Sepsis."

October 1—W. C. Neibling, "Orificial Surgery;" J. P. Baker, "Eclampsia."

November 5—W. M. Metzler, "Acute Articular Rheumatism;" F. B. Entrikin, "Croup."

December 3—Business session; reports of officers; election of officers.

A joint meeting of the Hancock and Seneca County Medical Societies was held February 20. The following program was carried out:

"The Diseased Tonsil and Its Removal," E. H. Porter, Tiffin; discussion by Drs. Kimmell, Gibbon, Wenner, Baker, Firmin, West and Porter. "Puerperal Eclampsia," J. P. Baker; discussion by Drs. Wenner, Gooding, Reycraft, Gibbon, Williamson, Wilson and Baker. "Fractures," H. B. Gibbon, Tiffin; discussion by Drs. Miller, Wenner and Gibbon. "Fakes and Fads," M. S. Williamson, Findlay; discussion by Drs. Kimmell, Miller, Gibbon, Norris, Hatfield, Wilson, Saunders and Housman.

Five applications were received for membership and referred to the membership committee.

Both counties were well represented at the meeting.

FOURTH DISTRICT

The Academy of Medicine of Toledo and Lucas County met February 1.

W. E. Lower, of Cleveland, was the guest of the society and read a paper entitled "A Clinical Report in the Diagnosis and Treatment of Tuberculosis of the Kidneys." Dr. Lower gave a brief historical review of the subject from the time of Morgagni. The diagnosis of kidney tuberculosis was considered in detail. The relation of tuberculosis of the kidney to tuberculosis of the urinary bladder was considered, and, although ulceration of the bladder occurs very often in involvement of the kidneys, this is not sufficient for a diagnosis, as ulceration may be absent, or, if present, no kidney lesion may be demonstrated. Dr. Lower is always suspicious of an acid urine containing pus. He described his routine procedure in making a diagnosis. The urine is searched for tubercle bacilli, but this requires much painstaking work and the bacilli cannot always be demonstrated. Even when the kidneys are tuberculous bacilli cannot be found, and inoculations of animals are resorted to.

The value of cryoscopy was considered and examples cited where its use was of material aid in making a diagnosis.

Dr. Lower did not think there was any medical treatment for this condition. He cited one case which was at the present time under his observation in which improvement was taking place without operation, but he thought such cases to be very exceptional. The first requisite before operation is to know whether the sound kidney is functionally active and able to do the work of the body. Here Dr. Lower had found cryoscopy valuable. The surgical technic was described. A new instrument was shown, devised to bring the kidney up out of a wound too small to insert the

hand. It is patterned after the obstetrical forceps used by veterinary surgeons upon small animals.

Removal of a tuberculous kidney does not always cure the existing bladder involvement. The treatment of this was outlined. Very well recommended is the injection into the bladder of 5 per cent. carbolic acid, controlling the pain and smarting with an opiate. The therapeutic use of tuberculin was mentioned.

Dr. Lower cited a number of clinical cases, giving results of operation from his series of thirty-one cases.

A number of pathologic case specimens were exhibited.

The discussion was opened by John G. Keller. Taking up the modes of infection, he discussed the various methods, through the lymph, blood and urinary channels. The kidneys may also be infected through neighboring structures, as spinal caries, empyema, etc.

The diagnosis should be made early. The successful diagnosis and treatment must rest upon an adequate determination of the structural and functional condition of the kidneys.

The questions to be asked: 1. What is the nature of the disease? 2. Bilateral or unilateral? 3. Which kidney is affected? 4. If only one is affected, is the function of the other sufficient to maintain life?

In answering these questions, we resort to cystoscopy. Dr. Keller said that tubercle bacilli may be found in urine with no tuberculosis of the kidneys, but if the bacilli are present with pus and blood the diagnosis is assured. Symptoms are pains in the loins, painful micturition, polyuria and pyuria. Cystoscopy shows that the bladder may contain fine hemorrhagic petechiae, which may have a diagnostic significance. The ureter openings may be swollen, studded with tubercles or ulcerated.

Cryoscopy is important, but Dr. Keller believes that one of the chief functions of the kidneys is the excretion of water, and of this the cryoscopic examination gives us no aid. A detailed description was given of the methods and value of the freezing method. It is of much importance, but should not replace all other methods.

Cryoscopy of the blood is extremely valuable. The phloridizin test as a means of determining kidney sufficiency was described; also the indigo-carmin method.

Speaking of the prognosis, Dr. Keller said that bilateral infection or poor functioning capacity

means a grave result. The treatment was then discussed. The paper was also discussed by Drs. Heath, Jacobson, Brown and Harper and closed by Dr. Lower.

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Toledo and Lucas County met January 31. The general subject was "Tabes."

Chas. Lukens read the first paper upon the "Ocular Manifestation of Tabes." Dr. Lukens said that tabes is of interest to every specialist in medicine. The syphilographer, neurologist, internist, laryngologist, aurist and oculist are all interested. The relation of tabes to syphilis was considered. The differentiation between tabes and locomotor ataxia was pointed out, as in the early stage ataxia is absent. Dr. Lukens believes that failure to recognize tabes during the pre-ataxic stage constitutes criminal ignorance or carelessness.

The ocular signs may be the first manifestations of the disease. The conception of the pathology of tabes has changed during the last few years. In place of posterior spinal sclerosis, it is now believed that degeneration of the sensory neuron in the posterior spinal ganglion is the primary lesion. The cranial nerves may be affected as the spinal ones. The same toxins act on both. Affection of certain sympathetic ganglia may be important from an ocular standpoint. The tabetic degeneration may begin in the ganglia of the cranial, spinal or sympathetic nerves, and the signs produced will depend upon this localization.

The systemic signs were briefly mentioned. The ocular manifestations are due to involvement of the second, third, fourth, fifth and sixth cranial nerves and the sympathetic, particularly the ciliary ganglion.

The Argyll Robertson pupil is present in 90 per cent. and is an early sign. Preceding this sign may be abnormal response to light. Either mydriasis or myosis may be present. Paralysis of accommodation may occur. The pathology of the Argyll Robertson pupil was considered in detail. The work of Marina seems to show that this sign is due to a degeneration of the ciliary ganglion.

Next to the Argyll Robertson pupil the most common sign is palsy of one or more of the external ocular muscles. This paralysis occurs in one-half of all cases. These paralyzes are due either to a nuclear lesion or a peripheral neuritis.

Disturbance of the fifth nerve may produce paresthesia of face or eyes. The other tabetic ocular signs are lowering of the intra-ocular tension and narrowing of the palpebral fissure.

Optic atrophy is the most serious ocular condition. It is usually progressive, but remissions may occur. Complete blindness comes on in from two to ten years. Statistics as to the frequency of optic atrophy were given. The pathology and ophthalmoscopic findings of optic atrophy were discussed in detail. Mercury is contra-indicated in the presence of optic atrophy.

Dr. Lukens cited a number of clinical cases showing the importance of the ocular signs.

John North read a paper upon the "Laryngeal and Aural Manifestations of Tabes."

Dr. North reviewed the pathology of the tabes and said that the pathology had undergone entire revision since he was a student. The lesions of the ganglia of the dorsal roots are responsible in part at least for the peripheral neuritis, since with degeneration of the spinal ganglia and consequent loss of trophic influence there would necessarily be degeneration in the peripheral nerve trunks.

Speaking of laryngeal and aural crises, Dr. North said that these were rare. Nasal crises occur. They are associated with sneezing attacks. Deafness may develop, due to lesions of the auditory nerve. Vertigo may occur. One is led to believe from text-books that laryngeal symptoms in tabes are common. Upon the contrary, they are very rare. Dr. North quotes extensively from the literature and reviewed the published cases of laryngeal crises and the findings upon examination in these cases.

Spasm of the laryngeal muscles, abductor paralysis, unilateral or bilateral, may occur. Five cases of tabes with laryngeal symptoms were reported by Dr. North. The throat symptoms come from a degeneration of the cervical ganglion. Cough and dyspepsia are the characteristic symptoms, and their sudden appearance may suggest the pressure of incipient tabes.

Wm. W. Alderdyce read a paper upon the "Rôle of the Oculist in the Treatment of Tabes." Emphasis was laid upon the opportunities of the oculist for making early diagnosis before the development of the well marked motor, sensory and reflex symptoms, such as incoördination of movement, lightning pains, sensory disturbance of the skin and loss of mystatic irritability.

The eye signs are among the earliest and most important, and, as they offer means of diagnosing tabes in its incipency, should not be neglected

on account of the therapeutic advantage which it gives.

Among the eye conditions produced are ocular palsies, optic atrophy, diplopia, ptosis and difficulties in accommodations. The oculist must work in conjunction with the internist in the treatment of tabes. To be avoided are severe mental work, anxiety, fatigue, exposure to cold, excesses, smoking and the use of alcoholics. The influence of drugs interests the oculist, mostly with reference to optic atrophy. As in general treatment, it unfortunately offers but little encouragement.

The relation of tabes to syphilis was considered in detail, and the question of the value of mercury and the iodides may be injurious by hastening the progress of optic atrophy is very gloomy, the disease progressing to complete loss of sight, though at times the process is arrested. The interval between the involvement of the optic nerve and the advent of complete blindness varies much in different cases, the average being perhaps one year. In cases of tabes under treatment by the internist and where mercury is being administered, a careful examination of the visual field should be made, as slight involvement of the optic nerve may exist and escape detection. Color blindness may occur early and is a symptom of optic atrophy, and its rate of development is a measure of the progress of the disease.

Regarding the treatment of the diplopias, these may be transient and disappear independently; but, if permanent, measures may be taken to exclude one eye from the visual act.

The neuroses should be strengthened by tonics and alteratives, to enable them to withstand the existing toxæmia.

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met January 25. The general subject of the meeting was "Hemorrhoids."

Chas. Long read a paper on the subject of "The Pathology and Etiology of Hemorrhoids."

Homer Heath read a paper on "The Symptomatology and Diagnosis of Hemorrhoids." He said that under normal conditions the veins from which normal hemorrhoids develop are above the muco-cutaneous margin and only connected by capillaries with the middle hemorrhoidal vessels. When the sphincter is relaxed, the capillaries expand and present symptoms of both internal and external piles.

Taking up external hemorrhoids, Dr. Heath said

that in the thrombotic variety the patient may suddenly feel a sharp, sticking or tearing pain while at stool or exercising. If the blood is under tension, there may be a sense of weight, aching, throbbing and inability to sit down with comfort; also with continuance of sharp, lancinating pains at stool. The pains may invoke spasms of the sphincter. Examination disclosed a sessile or pedunculated tumor, varying in size from a split pea to an English walnut, bluish in color and situated along the anal margin. It varies in consistency, depending upon duration and presence or absence of infection. Calcification may occur in the thrombosis.

The varicose hemorrhoid or vein was then taken up. This variety develops slowly, without pain or constipation. They form a bluish mass around the entire anus, and, as they produce no symptoms, are not usually recognized.

The inflammatory or edematous piles are usually the results of traumatism or irritation along the margin of the anus. This form of pile is very painful, and they are also prone to severe infections.

The connective tissue pile or skin tag may occur and usually results from long continued irritation. By some they are regarded as evidence of syphilis.

Internal hemorrhoids may be thrombotic, varicose, capillary or mixed.

The thrombotic form differ only in location from the external variety.

The varicose form is the most frequent of internal hemorrhoids.

Hemorrhage and protrusion are the two cardinal points.

Benjamin W. Patrick read a paper upon "The Palliative Treatment of Hemorrhoids." A palliative treatment is necessary on account of the frequency of the disease, because the laity do not always consider the disease important enough for operation unless all the so-called "cures" have first been tried, because palliative measures sometimes really cure. Diet is the first important palliative measure; stimulants, highly seasoned foods, alcoholics, etc., should be interdicted. The bowels should be kept loose with vichy or other saline laxatives. The formation of a habit in getting the bowels to move is very important. In the thrombotic pile, an ointment of calomel and morphine may afford relief. Lead and opium washes may do good. Intra-rectal injections of water may do good. Collodion dressings are said to contract the hemorrhoids and do good in that way.

In the treatment of internal hemorrhoids the same measures of a general nature that were recommended for external hemorrhoids can be employed. At times contraction may be obtained by the application of nitric acid. This may be painful. Ice may afford great relief. For hemorrhages there can be used alum, tannin, hamamelis, morphine injections, tampons or the cautery. Dr. Patrick believes that the majority of patients will more readily submit to laparotomy than to the radical cure of hemorrhoids.

U. S. Grant Deaton considered "The Surgical Treatment of Hemorrhoids." Dr. Deaton first gave the technic of Whitehead's operation. He then described the American operation, which is only a counterfeit of the Whitehead operation and espoused by Pratt, of Chicago.

Dr. Deaton said that the pressure and torsion methods cannot be considered surgical. By this method the pile is grasped between fingers and thumb and slowly twisted on its own axis until the pile is rather torn loose from its base.

Dr. Ball, of Dublin, recommends electrolysis in cases of capillary hemorrhoids. He advises the negative pole connected to a battery of ten to twenty Le Clanche elements. Only one pile is treated at a time. The advantages of this method are that the pile shrivels up, leaving no wound or ulcer, no moisture or pus, no detention from business and no pain. The objections are that electrolysis is often difficult, the cure is uncertain, tedious, and it is a favorite method of quacks.

Cauterization was first done with nitric acid by Cusack and Houston. The electric cautery may be used. The method of crushing has been variously done with especially devised "crushers" or *ecraseurs*.

The method of dilatation was first advocated by Verneuil. This is done with the thumbs under anesthesia.

The operations of Drs. Druitt, Lisfranc and Dupuytrou and Boyer were then described.

The injection method has been much used by physicians, as well as drug clerks, farmers, quacks and others. Mixtures containing carbolic acid diluted with olive oil, sometimes with the addition of zinc chloride, are used.

The excision method was much used years ago and has recently been revived by Pennington, of Chicago.

The submucous ligature of Ricketts was described in detail; also the method of Earle and the ligature methods of Bodenhamer, Allingham and Matthews.

The sailor's plan of treatment was finally described. The suffering sailor is given a purge. When the bowels have ceased acting, a plug of oakum is thrust into the rectum for a distance of three inches. A rope bandage holds the oakum in place. This is allowed to remain three to five days, and at the end of that time the bandage is removed and the piles *should* be cured.

The Pathological Section of the Academy of Medicine of Toledo and Lucas County met February 14.

J. H. Jacobson demonstrated three pathological specimens—a dermoid cyst of the ovary, a fibroid tumor of the ovary and a rectal diverticulum.

The general subject of the section was "The Blood."

N. Worth Brown read a paper upon "The Cellular Constituents of the Blood." He said that in early life we were able to recognize in the splanchnopleme between the mesodermal and entodermal layers a fine network of imperfect channels, which later assume the character of primitive blood vessels, the earliest blood cells lining these embryonic blood vessels. During foetal life leucocytes develop in the lymph nodes, bone marrow, liver and spleen, but after birth only in the bone marrow, lymph glands and spleen. The erythroblasts are also derived from the blood islands and is the only red blood cell found during the first month of embryonic life. The transformation from normoblast to normocyte takes place by extension or absorption of the nucleus.

Taking up the adult cells, Dr. Brown first described the normal red cell. These cells are destroyed in the spleen, liver and lymph glands. Various modifications of the red blood cells occur. The megaloblast is an embryonal form. Other forms are the microblast and microcyte. Poikilocytes are deformed red cells.

The leucocytes may be divided into mononuclear and polynuclear, granular or non-granular, neutrophilic, acidophilic and basophilic.

Each of the leucocytic types were described in detail. The nature and the character of the granules in the white cells were discussed. The myelocyte was described as an interesting cell found during health in the bone marrow and under certain conditions in the circulating blood. It is the mononuclear cell, with a large oval, round or notched nucleus and abundant granulation. Their presence in the blood is character-

istic of a pathologic condition in the bone marrow.

Elmer J. McKesson read a paper upon "Chlorosis." He said chlorosis was a disease of girls, usually between the age of fourteen and twenty. It is an endogenous disease. Overwork, lack of exercise, poor food, dark and poorly ventilated rooms are predisposing causes.

No one theory of the cause of chlorosis is generally accepted. Virchow attributed the disease to a poor vascular development.

Burge's theory is that the organism stores up iron in the liver and spleen at puberty at the expense of the blood. This is a material provision, and it has been shown that the blood actually becomes poorer in hemoglobin at puberty.

Nothnagel ascribed chlorosis to intestinal putrefaction and constipation. Von Noorden believes that a functional weakness of the hematopoietic organs exist, which may or may not be congenital.

The symptoms are usually due to the anemia. The skin is pale or greenish yellow; the patient is easily fatigued; palpitation and dyspnoea occur. Menstrual disturbances may be present. Attacks of unconsciousness may occur. The appetite is poor; nervousness and irritability may be present.

The blood findings are quite characteristic. Hemoglobin is usually between 40 and 50. The red cells are not especially reduced, usually remaining around 4,000,000.

Normoblasts and poikilocytes may appear in the severe cases.

Chlorosis must be differentiated from simple anemia, hemorrhagic anemias, kidney disease and beginning tuberculosis.

Treatment consists in stimulating the blood building organs. Ovarin has been used in a few cases with success. Iron in some form is the best remedy.

Terrence J. Cunningham read a paper upon "The Secondary Anemia." Secondary anemia is a condition where there is a deficiency of corpuscular substance, red cells or hemoglobin, without change in the number of leucocytes, the total volume of blood or appreciable alteration in the chemical composition of the cells or the serum.

Secondary anemia is not a disease, but a symptom. It may follow hemorrhage. The hemorrhage may be traumatic, post-partum, from tuberculosis, carcinoma, hemorrhoids, purpura or any one of a great number of conditions.

Secondary anemias may be produced by long continued albuminous or carbohydrate drain upon the body, as in Bright's disease or diabetes, tuberculosis, pyelonephrosis, pus tubes, hepatic abscesses, empyema, etc. Toxic anemias can also be classed as secondary. Such forms are lead poisoning, mercury, arsenic, malaria, febrile diseases, syphilis. Anemia may also be produced by a lack of food or a marked decrease in its amount. This occurs in esophageal obstructions. Inability to digest food may be an important factor. Carcinoma, atrophic gastritis, acute fevers, intestinal parasites, are here included.

It is difficult to draw a line between the symptoms of secondary anemia and the conditions which produce it. The face is pale; faintness, nausea and vomiting may occur in anemias of rapid development. The heart becomes fast, weak and irregular. In severe cases the respiratory and circulatory centers become depressed, and syncope follows.

The anemias with a slow onset appear quite different. The skin may be pale or slightly jaundiced; headaches, insomnia, dyspnoea occur. The heart muscle shows a fatty degeneration and dilatation, with resulting hemic murmurs. Palpitation is common. The poor circulation and tone of the vessels leads to edema.

The blood findings vary with the rapidity and cause of the anemia. The red blood cells may or may not be diminished. Their size may vary considerably. The hemoglobin is reduced. The specific gravity of the blood is decreased. The red cells may show degenerative processes, called necrobiosis. This may consist in an endoglobular change, with the appearance of clear, hyaline spaces within the cell body. Crenation and poikilocytosis may occur. Amœoid motions may be observed in the red blood cells of anemia blood. One of the most common evidences of secondary anemias is the changes in the staining properties. The protoplasts may take different colors, either the acid or the basic colors. This condition is known as polychromasia. When the anemia is marked, the blood shows evidence not only of degeneration, but of regeneration.

Nucleated forms appear, which may either be normoblasts, megoblasts or microblasts. The normoblasts are immature forms from the red bone marrow. Megoblasts do not occur anywhere in the healthy adult. It is found in the bone marrow of early life, and, in pathological states, in the blood and marrow.

Secondary anemia is easily diagnosed if we keep in mind the various causes. It is to be dis-

tinguished from pernicious anemia, the aplastic anemia and the leukemias.

The treatment consists in removing the cause, if possible. The hygienic conditions should be improved. The drugs used are iron, arsenic and strychnine. Salt solution is indicated in the hemorrhagic cases.

Louis A. Levison opened the discussion. He spoke of the derivation of the cellular elements of the blood and of the blood plates and their significance.

Dr. Danniells spoke of the changes occurring in the blood in the evolution of the higher forms of life.

Dr. Saunders discussed chlorosis and believed it occurred in males as well as females.

The discussion was closed by Drs. Cunningham, McKesson and Brown.

The Medical Section of the Academy of Medicine of Toledo and Lucas County met February 21. The general subject was "The Blood."

J. Todd Duncan read a paper on "Pernicious Anemia." He said, in part, that this disease is a result of degenerative action on the blood forming organs by an unknown agent, whereby the normal red cell is no longer reproduced by the part affected, but assumes different characteristics, resembling the embryonic. The low number of red cells is the result of the loss of the power of reproduction, rather than the destructive action on the cells themselves.

Abnormal cells are found in the blood. Of these the megoblast is never found in normal blood and rarely in secondary anemias.

The chemical nature of the substance causing the disease is not known, but it can be produced by different things, as bothriocephalus infection, following pregnancy, as a sequence to long continued anemias, carcinoma, achylia gastrica, etc.

The bothriocephalus latus is a cestode worm, from twenty-five to forty feet in length. The head is a little different from the taenia, as it has two lateral grooves or pits and no hooklets. Only a small percentage of persons having this infection develop the anemia. The parasite must first undergo death and decomposition before the specific toxin is absorbed. Extracts of the parasite in salt solution will destroy red cells when injected into dogs.

Blood findings are markedly changed. Hemoglobin is absolutely diminished, but in proportion to the number of red cells is relatively high.

This is due to the increased size of the corpuscles, which are decreased to even below 1,000,000. Nucleated red cells of all sizes are present. The whites do not take an important part; the lymphocytes are slightly increased.

The symptoms are not peculiar to this disease. The yellow pallor, pains, edema, hemorrhages, loss of appetite are all variable. The nutrition remains good and gives no indication of the state of the blood. Hemic heart murmurs may come and go. Many functional and organic nervous symptoms are present. In the differential diagnosis carcinoma is to be excluded. Secondary anemias may have to be ruled out. This is done by the low red count and high color index in pernicious anemia.

Postmortem shows an increase in iron in the internal organs, fatty degeneration of the heart muscle, echymoses in the brain, cord and intestines, atrophy of the mucous membrane of the stomach and a megoblastic change of the bone marrow, with a reddish color and lessened consistency.

The course of the disease is chronic, and, although remissions may occur, the result is usually bad unless a definite cause can be discovered and removed. Treatment depends upon the cause. Fowler's solution is the usual remedy. Blood transfusion may be tried.

W. F. Stone read a paper upon "Aplastic Anemia." This paper was read at the last State meeting and since published in THE JOURNAL. Dr. Stone reported his case and gave a lantern demonstration.

Louis A. Levison read a paper upon "Polycythemia." He said that this remarkable condition is a comparatively recently described disease or symptom complex. The condition has three cardinal symptoms—an increase in the number of red blood cells, cyanosis and enlargement of the spleen. Many names have been attached to the condition. It has been called Vagnez's disease, Osler's disease, splenomegalia, erythremia, erythrocythemia and hematocythemia. It is a rare condition, and about fifty genuine cases have been reported. All three cardinal symptoms are essential for a diagnosis. An increase in the number of red blood cells in the peripheral circulation occurs in many conditions. It may be found in diarrhoeal conditions, congenital or valvular heart disease, concretio cordis, obesity, paralyzed extremities, in high altitudes, after ether anesthetic, phosphorus poisoning and other conditions.

It has been suggested that the polycythemia is

an attempt to make up in numbers for a decrease in the oxygen carrying capacity of the individual cell. Vagnez and others ascribe the increase to a primary disease of the blood forming organs, and its origin is just as unexplainable as the similar increase in the whites in leukemia.

The cyanosis is usually most noticeable upon the lips, nose and ears. It is due to the over-filling of the capillaries.

The third cardinal sign is enlargement of the spleen. This is a cyanotic induration due to a venous congestion. Symptoms of secondary value are pains, headache, constipation, increased blood pressure, albuminuria, hemorrhages and asthmatic attacks.

The most characteristic findings is the polycythemia, and without it the diagnosis cannot be made. The red count may go up as high as 13,000,000, but it usually is 7,000,000 to 8,000,000. In the cases which have come to autopsy the findings have been in intense hyperplasia of bone marrow, enlarged spleen, with chronic passive congestion.

The treatment is unsatisfactory. Bleeding will relieve the vertigo. Oxygen helps the cyanosis, and the X-ray will decrease the size of the spleen and the number of red cells.

N. Worth Brown opened the discussion. He spoke of the etiology of pernicious anemia and discussed the significance of bothrioccephalus latus infection. He suggested a theory as to the cause of the increased hemolysis.

W. F. Stone reported seven cases of pernicious anemia coming under his observation. He cited the blood findings from these cases.

Wm. Dickey spoke of the etiology and treatment of polycythemia.

L. A. Levison spoke of the various hemolysis which may cause pernicious anemia or a blood picture similar to it. He spoke of the importance of the bacillus aerogenes capsulatus in the intestinal tract as a hemolysin. This organism increases when the growth of the bacillus coli is diminished. Intestinal putrefaction of a saccharo-butyric type also produces a hemoglobin. Good results may follow intestinal irrigation.

The second annual meeting of the Ottawa County Medical Society was held at Oak Harbor Wednesday, January 22. The program was as follows, the toastmaster being S. T. Dromgold, of Elnore:

"The American Doctor Abroad," M. Stamm:

"The Ideal Doctor," Dr. Frederick; "The Doctor as a Leader in His Community," D. Barringer; "What Shall the Baby Cost?" F. Ingraham; "Ottawa County Medical Society," A. B. Jordan; "To the Ladies," A. L. Bowman; "When the Veil is Lifted," Emery Huyck.

Following this a banquet was served.

FIFTH DISTRICT

At the forty-seventh regular meeting of the Clinical and Pathological Section of the Academy of Medicine of Cleveland, held on January 3, 1908, the following program was presented:

1. Report of a case of vaginal Cæsarian section for acute cardiac dilatation and pulmonary edema, by F. S. Clark, M. D. Dr. Clark's patient was a woman who had been warned not to become pregnant on account of mitral regurgitation, but who had not heeded the warning and who expected to be confined in two months. The heart had acted well up to the seventh month, when pulmonary edema followed acute cardiac dilatation and necessitated emptying the uterus. This was successfully done by means of incision of the anterior and posterior lips and lower uterine segment, with the assistance of Drs. H. J. Lee and E. M. Season, and delivery with forceps. The patient did well for four hours, when the heart suddenly stopped beating. There was no shock from the operation. Dr. Clark repeated a statement made in a former paper to the effect that the physician is not justified in assuring any patient that she can go safely through the strain of childbirth if she has an organic cardiac lesion.

2. Notes on Club-Foot, with Special Reference to Treatment, H. C. Feiss, M. D. Dr. Feiss's paper was a general discussion of the subject. He emphasized the fact that whatever treatment is employed for this condition its application is a lengthy one, and that if there were not natural processes which aid in reshaping the deformed bones to the new requirements, nothing could be accomplished.

3. The Value of Blood Examination in Surgery, F. E. Bunts, M. D. Among other things Dr. Bunts said that he had found the iodophilia reaction, as far as he had used it, to have a distinct prognostic and a moderate diagnostic value. He said that the fact that it is not present in an unmixt tuberculous infection is of value in differential diagnosis. The occasional absence of this reaction in suppurative cases limits its value to a certain extent. He considered that an increase in the number of polymorphonuclear cells

in proportion to other forms has a grave significance. He also believed that the observation of this fact by means of differential counting will come to be more used than the ordinary white count alone.

The Lorain County Medical Society held its January meeting at St. Joseph's Hospital with an attendance of about twenty-five. The minutes of the December meeting were approved. The papers of the evening were by Dr. Hart, of Elyria, and Dr. W. C. Hayes, of Lorain.

W. A. Hart, "Clinical Report of a Case of Gastric Ulcer, with the Surgical Treatment," the subject being himself, with a report of the work and life of the Mayos of Rochester, Minn.

For a number of years Dr. Hart had been suffering with attacks of abdominal pain and tenderness over the region of the stomach. His general health was impaired, and his personality was entirely changed so that he was morose and disinclined to work. He had vomiting, pyrosis, with other subjective signs, and from a number of clinical examinations, test meals, blood count, etc., it was decided that his illness was due to gastric ulcer. Finally, after prolonged treatment he decided to consult the Mayos, of Rochester, and they decided on operation. An exploratory incision showed no ulcers of the stomach in an active state, but marked adhesions about the lesser curvature of the stomach and evidence of gall bladder trouble. The gall bladder was opened and found to be chronically inflamed, thickened walls with a gelatinous black material, and small stones were found, and after cleansing thoroughly the gall bladder was drained with so-called cigaret drainage. The wound healed in very short time. Two weeks from time of leaving hotel for hospital he had returned to the hotel. It was explained that the Mayos determined the time of leaving the hospital more by the blood pressure than other signs, the temperature being nearly normal, and after leaving the hospital a number of hotels in the town were made use of as sanitariums during convalescence. The doctor's health is so much improved that he can attend to his practice with a cheerful face and manner, and the least he can do he says is to praise the wonderful work of the Mayos. A description of the town with the life of the Drs. Mayos was given.

W. C. Hayes, "Dislocations of the Uterus." In this paper dislocations were classified, the physiological and pathological being the primary classification. Congenital and acquired disloca-

tions were then taken up. Acquired dislocations were classified as due to, first, error in mode of dress; second, negligence in tending to bladder and rectum; third, adhesions from pelvic inflammation; fourth, injuries internal and external, the external injuries those occurring after labor being most frequent.

Many of the symptoms were reflex nervous disturbances and a neurotic tendency was a factor in 75 to 80% of the cases.

The paper gave a description of the best means of digital examination as the re-inforced hand placing the elbow against the knee or thigh so that the fingers do not tire under examination. The treatment of various dislocations was outlined.

The results from prolapsis and posterior dislocations were said to be better, posterior dislocations to be replaced at once if following labor. The use of tampons and pessaries were more palliative while repair of vaginal outlet shortening of round ligaments were curative.

Discussion: Charles H. Cushing asked whether nervousness was the cause or effect of uncertain uterine dislocations.

Dr. Mead: "I believe that the sexual organs are debilitated as other organs and that operation is often a failure."

O. B. Monosmith: "Specialists see so much abnormal, and I think often after being treated for everything, the patient ends up with neurasthenia. Did straightening up of uterus ever cure headache?"

W. C. Hayes: "I know of no way of differentiating whether mal position is cause or effect in the nervous cases. In one case of complete prolapse a repair of perineum and straightening up of the uterus cured the headaches that had been a prominent symptom."

Business: A. J. McNamara was elected a member of the auxiliary board of public policy and legislation, E. V. Hug withdrawing.

The following were elected members of the Board of Public Policy and Legislation: Dr. Cameron, Dr. Hubbell, and Dr. Everett.

Dr. Brown made a motion that the Secretary write a letter to the prosecuting attorney, asking aid in the conviction of one, Mrs. Uleska, charged with illegal practice of midwifery in Lorain, and pledging the support of the society in such action.

W. B. Hubbell moved that as a Society we sustain the action of the American Medical Society

in endorsing Secretary of War Taft for President in opposition to Senator Foraker.

J. B. Donaldson tendered his resignation as Secretary of the Society, and proposed the name of George Gill as his successor. Dr. Cushing moved that the resignation be accepted. Carried.

The Erie County Medical Society met in regular session with C. B. Bliss in his new office building.

Roger Perkins, Pathologist of Western Reserve Medical College, lectured on "Tumors," treating the subject generally in a very attractive and instructive address. The classification was discussed from several points of view, and the theories in regard to the origin of new growths were carefully handled. Dr. Bliss discussed "Probability of Recurrence in Cancer."

A motion to establish a department of medical reference books in the public library was introduced by William Storey, and referred to the Program Committee for selection of books and further consideration.

The Trumbull County Medical Society met Wednesday, February 19, 1908, at the Warren City Hospital, Warren, Ohio.

Carl A. Hamann of Cleveland held a clinic, the general subject being "Abdominal Pain," and members of the Society brought appropriate cases for examination and demonstrations.

After the meeting the annual election of officers took place.

The forty-seventh regular meeting of the Lake County Medical Society was held at 8 p. m. on Monday, February 3, 1908, at the Parmly Hotel, Painesville, Ohio.

Program.

"Reports and Presentation of Cases," "Miscellaneous Business," "Cancer of the Uterine Cervix," R. E. Skeel, Surgeon to Cleveland General Hospital; adjournment and payment of annual dues to Secretary.

SIXTH DISTRICT

The tenth session of the Sixth Councilor District was held at Ashland, February 18. The program was as follows:

"The Physiology of Digestion," with a practical demonstration, F. A. Rhodes, Professor of

Physiology, West. University of Pennsylvania. Dr. Rhodes called attention to the opinions of different ages and pointed out the theories then advanced. "No one can say that he fully understands the function of an organ till he is able to restore the disturbed function to a normal state." (Pawlow.)

Van Helmont assumes the current teaching of his day to be:

(1) That the food absorbed from the stomach and intestines is in the liver endued with natural spirits.

(2) That in the heart the natural spirits are converted into vital spirits.

(3) That in the brain the vital spirits are converted into animal spirits.

He speaks of six digestions or concoctions by which the dead food is converted into living, active flesh, namely:

"First stage is the digestion in the stomach. It is obvious that in the stomach food and drink are converted into chyle; this conversion takes place by means of a ferment; this ferment comes from the spleen, from which the stomach draws all its energy. The change in the duodenum is brought about through a more excellent rigor of transudation."

"Second digestion occurs in the duodenum and the ferment is furnished by the bile. The acid ferment of the stomach ceases when the chyle reaches the duodenum. For every ferment dislikes to have as its allies things foreign to itself; it will not listen to the commands of strange masters; it refuses to play the thief and put its sickle into another's harvest." (He knew nothing of pancreatic juice.)

"Third digestion is that of sanguinification by which the chyle is converted into blood, into crude blood, into cruor and serum, not yet into vivified blood; the cruor will later on become this vivified blood, the serum being used for the formation of urine and sweat. The ferment of the third digestion is furnished by the liver, which thus supplies two ferments."

"Fourth digestion takes place in the heart and arteries. By this elaboration the darker and thicker blood of the vena cava becomes lighter in color and distinctly volatile."

"Fifth digestion changes the blood of the arteries into the vital spirit of the *archaens*."

At this point comes a remarkable generalization by which Van Helmont leaps ahead and anticipates conclusions which were not reached until many a long year after him.

"*Sixth digestion* takes place in the kitchens of the several members, for there are as many stomachs as there are nutritive members. A spirituous, a ferment, innate in each place, cooks its food for itself."

Erroneous notions are entertained as to the position of the stomach. Normally it does not lie transversely, but nearly perpendicularly. Its capacity is from 1 to 4 pints—2½ on an average. Practically all the food taken into the body is in a colloid state, and presents no tendency to unite with O.

Many an animal will starve if the cells are presented with starch, etc.

Ferments hasten process of hydrolysis—

Starch + H₂O = Maltose.

Maltose + H₂O = Monosaccharrhides.

Fat + 3H₂O = Glycerine and fatty acids.

Ferments are capable of reversible action. Hence, their products must be removed. We may have a good stomach and liver, and yet have poor nutrition. The stomach is not so delicate an organ as the intestines.

Extracts made of the pyloric mucous membrane in boiling water or 4% HCl contain substances which on injection into the blood vessels of an animal leads to a secretion of gastric juice.

Extracts made of the fundus membrane, however made, do not contain this substance.

The substance is not a ferment, on boiling an extract leads to an increase rather than an administration of its properties.

The movements of the stomach may be ascertained by administering salol. Salicylic acid will appear in the urine in about 75 minutes. Tested for by chloride of iron, which gives a blue color reaction.

Doubtful if the nervous system plays any part in the flow of pancreatic juice.

"Diagnosis of Disorders of Digestion" (with practical demonstration), John Dudley Dunham, Columbus, Lecturer on Diseases of the Stomach, Starling Ohio Medical College.

The intelligent diagnosis and treatment of stomach diseases had its beginnings about thirty years ago. Von Leube has the distinction of first using the stomach tube for diagnostic purposes, but to Kussmaul belongs the credit of employing the stomach pump for therapeutic measures. Ewald was the first to use the soft rubber tube for this means of treatment.

Boas says the diagnosis of stomach disorders belongs to the most difficult division of clinical

pathology. This difficulty is made plain when we consider the proximity to the stomach of other organs and the the frequency of reflex disturbances in the stomach when quite remote parts are affected. The physician who attempts to diagnose gastric disease must needs have a firm basis of general medical knowledge. He must employ all the aid which physical diagnosis and the instruments of precision can furnish.

Every patient and all too many physicians ascribe all ailments in abdomen to the stomach.

Much knowledge of the function of the digestive processes has been gained by the use of the stomach tube, examination of contents after test meals and by examination of feces after special test diets.

We have gone through the stage of extremes when it was supposed that the presence of lactic acid was diagnostic of carcinoma ventriculi and that excessive hydrochloric acid proved the existence of ulcer in the stomach.

We are in very much the same position about these diagnostic methods as in diseases of the kidneys. Very few physicians today would have the temerity to make a positive differentiation of the variety of nephritis from the urine alone, yet who would attempt such a diagnosis without the adequate urinary tests?

In digestive disorders we must make first a careful study of the anamnesis, a thorough examination of the entire body, including blood, urine, gastric contents, and intestinal excretion, and thus build our diagnosis not from one element, but from the entire picture thus obtained.

Much work has been done in recent years on the size and position of the stomach and until the methods of Roentgenograms was introduced the classic work based upon observation of operations performed intra vitam and upon many post-mortems was by Dr. H. W. Bettman, who published a monograph on the subject in the Philadelphia Medical Journal.

The work of the X-ray workers has proved that in the erect posture the stomach consists of two parts—a vertical and a horizontal or pyloric part. For purposes of diagnosis, however, aside from the condition of gastroptosis the size and position of the stomach is practically of no importance. The great question to be decided is: Does the stomach perform its function of emptying the food into the intestine at the proper time?

Dr. Dunham then described the various test

meals showing the tests usually employed for determining the efficiency of the gastric secretion and motility. Specimens of stomach contents were exhibited from several patients showing the character of the contents in the different diseases.

A patient was then presented to the Society by the courtesy of one of the members of the local Society. The stomach of the patient was inflated and the stomach demonstrated lying entirely below the umbilicus.

"Surgical Diseases of the Stomach," George W. Crile, Cleveland. The two principal points in Dr. Crile's address were that "Ulcer of the stomach—acute and chronic—are medical diseases, and do not call for surgical interference unless hemorrhage becomes uncontrollable by medical means. Few cases of cancer of the stomach are cured by surgical means unless recognized early. Present investigations reveal hopeful signs for making early diagnosis."

After the regular program a business session was held, with the following results:

W. H. McClellan of Ashland was elected President; J. H. Seiler, Akron, Secretary, and H. H. Jacobs, Akron, Treasurer.

The district has a membership of 475, a gain of 75 over last year. Out of 18 on the program, 16 responded. The average attendance was 90. The treasurer's report showed a balance of \$335 on hand.

Two points were discussed at this meeting, namely:

1. Has the Secretary a right to send "duns" to members of County Societies who have not expressed their willingness to be members of the District Society?

2. What constitutes membership in a District Society that a man can be held responsible for regular dues?

An amendment to the Constitution was offered, and at the same time the Secretary was instructed to bring the questions before "The Council" for an opinion.

The next meeting will be held at Youngstown the second Tuesday in August.

SEVENTH DISTRICT

The Monroe County Medical Society met January 30, and the following officers for 1908 were elected: President, W. G. Webb, Cameron;

Vice President, J. W. Norris, Woodsfield; Secretary and Treasurer, J. R. Parry, Woodsfield; Delegate to State Society, F. C. Huth, Woodsfield; Board of Censors, A. H. Korner, Woodsfield, F. W. Murray, Stafford.

Dr. Thornton of Wheeling, W. Va., was to have read a paper, but was unable to be present on account of ill health.

EIGHTH DISTRICT

The Licking County Medical Society met in regular session February 4, 1908. Tuberculosis was thoroughly discussed under different heads. C. H. Wells, of Summit Station, read a paper on "Diagnosis in Adults," which was followed by a presentation of a clinical case by E. E. Evans.

C. F. Legge read an interesting paper on "Treatment of Tuberculosis—Hygienic and Climatic." Dr. Spear presented a clinical case. This paper was followed by the subject of "Dietetic and Medicinal Treatment," by J. P. H. Stedem, followed by a clinical case by J. A. Mitchell. After the subjects had been thoroughly discussed, a large amount of business was brought before the society.

The following motion by J. H. P. Stedem was carried unanimously:

WHEREAS, It has been reported to the Licking County Medical Society that C. P. King attended the meeting of the Auxiliary Committee of the Ohio State Medical Association at Columbus, Ohio, recently and registered as delegate of the Licking County Medical Society; and,

WHEREAS, Dr. King is neither the delegate nor the auxiliary committeeman of this society; therefore, be it

Resolved, That the secretary of the Licking County Medical Society be instructed to take this matter up with the secretary of the Auxiliary Committee and learn the facts, and also acquaint the Auxiliary Committee with the standing of Dr. King; and be it further

Resolved, That if this report be confirmed by the inquiry, the secretary of the Columbus Academy of Medicine be advised of the facts.

NINTH DISTRICT

The regular meeting of the Lawrence County Medical Association was held January 22, commencing at 2 o'clock. An unusually interesting and instructive program had been arranged, and a large attendance of the members was present.

Dr. Salmon, of Ashland, read a paper upon "Diagnosis of Tumors of the Brain;" Dan Grey upon "Technic of Brain Surgery," and T. H. Remy upon "Diagnosis of Fracture of Skull." Business of importance was discussed at the meeting.

The Pike County Medical Society held a special meeting February 3. The following papers were read:

"The Examination of School Children with Reference to Eye, Ear, Nose and Throat," R. Blee Smith, Columbus; "Menstruation: Consideration of the Hygiene and Relief of Some of Its Anomalies," S. J. Goodman, Columbus; "The Early Diagnosis of Gall Bladder Disease," H. F. Lorimer, Chillicothe; "Cancer," J. S. Rardin, Portsmouth. The papers were generally discussed.

TENTH DISTRICT

The Columbus Academy of Medicine met January 20. The following program was presented:

"Asthma from the Standpoint of the Rhinologist," F. L. Stillman; discussion by Drs. Davis and Lisle. "Rupture of the Sigmoid Colon from Air Compression," Fred Fletcher; discussion by Drs. Baldwin and Gilliam.

Dr. Fletcher reported the case of a man, aged thirty-six, who had sustained a six-inch laceration of the sigmoid flexure. The injury followed an inflation of the rectum with not less than seventy pounds of compressed air. The intestine was repaired four and one-half hours after the accident. The patient recovered after the following operations: Laparotomy for the closure of the intestinal tear; a left inguinal colostomy (three days later) for the relief of a complete intestinal obstruction; the resection of a part of two ribs for the cure of an empyema; laparotomy for the repair of a ventral hernia and for the purpose of exploring the pelvis; laparotomy as a means of obliterating the artificial anus, three inches of the descending colon and six inches of the sigmoid being resected. The anastomosis was made with a large sized Murphy button, which was passed on the twenty-seventh day.

S. S. Wilcox was elected a member of the board of censors, and F. W. Blake a delegate to the State meeting.

The Columbus Academy of Medicine met February 3.

Earl M. Gilliam presented specimens as follows:

1. Small sized fibrous prostate removed by the perineal route from a man aged sixty-six. The wound closed on the twenty-fifth day; recovery.

2. Large sized vesical calculus removed by superpubic cystotomy from a man aged eighty; recovery.

3. Intra-ligamentous and subperitoneal fibroid for which a hysterosalpingo-oophorectomy had been made; recovery.

4. Advanced carcinoma cervix uteri. Recovery following pan-hysterectomy and removal of the upper segment of vagina. The patient was aged thirty-two.

5. Bilateral pyosalpinx and uterine fibroid from a patient aged thirty-four; hysterosalpingo-oophorectomy; recovery.

6. Suppurative salpingitis (right side), with appendicular abscess; patient aged twenty-five. The appendix had a posterior position and was embedded in the cecum. The intestine was soft and friable, showed marked pathological changes and bled freely on the introduction of sutures. The left side was normal. Salpingo-oophorectomy and appendectomy. Patient convalescent.

7. Ovarian cyst, with evidences of malignancy, from a woman aged thirty-nine; ovariectomy; convalescent.

8. Large sized gangrenous appendix from a boy aged thirteen; appendectomy and partial resection of the secum; convalescent.

9. Tuberculous uterine appendages and vermiform appendix; patient aged thirty; the appendix was removed, together with the pelvic organs, with the exception of a portion of one ovary; convalescent.

10. Pyosalpinx (right) and hydrosalpinx (left) with very dense adhesions; patient aged twenty-seven; double salpingo-oophorectomy; convalescent.

J. F. Baldwin reported the case of a young married woman in whom he had made an artificial vagina by resecting a piece of the ileum. She had been married two years. Had a menstrual molimen, but no show of blood in any way. There was an entire absence of vagina, and, although normal ovaries were present and tubes, the uterus was represented by a little mass of tissue on each side of the pelvis about the size of the tip of the little finger. Patient had just left the hospital in fine shape.

"Primary Malignant Disease of the Appendix," J. J. Coons; discussion by Hugh Baldwin.

"Goiter," Frank Warner; discussion by Drs. Deuschle, Baldwin, Leach, Gilliam, Harding and E. A. Hamilton.

The Columbus Academy of Medicine met February 17.

F. F. Lawrance reported the case of a woman upon whom he had operated for appendicitis, and presented the appendix, unruptured, together with a double cystoma and an early ectopic pregnancy in the fimbriated end of the right tube. The patient entered the hospital with a temperature of 99 and a pulse of 88. At the operation the pelvis was found filled with blood, although no symptoms suggested its presence. The appendicular symptoms predominated, and the ectopic pregnancy was not diagnosed before operation.

Frank Warner presented a male patient who had sustained a supracondyloid fracture of the right femur by being run over by a train one year ago. The bone union was prompt and satisfactory, but owing to the man's weight and early use of the limb the newly formed callus permitted a posterior angulation of the femur. The deformity was marked, as shown by skiagrams. The case was treated by the open method, and the femur straightened by the removal of a V-shaped piece of the callus. The result was excellent.

T. E. Courtright read the history of a patient he had treated for two years for an aneurism of the arch of the aorta and presented the post-mortem findings. The patient was a man aged sixty-two, a civil war veteran and addicted to the use of alcohol. Three years ago he developed an obstinate cough, and later complained of paroxysmal pain in the second and third interspaces to the left of the sternum. Dr. Courtright examined him one year later, when he found a small pulsating tumor, the size of a buckeye, in the second left interspace. A diagnosis of aortic aneurism was made. The growth gradually increased in size until it attained the size of an orange. The cartilages and a part of the sternum were absorbed. Later a subcutaneous abscess formed, the skin ulcerated, and, with the sloughing off of the front part of the protruding mass, there was left a large cavernous surface bathed in pus, at the bottom of which could be seen the pulsating aneurism. The patient died ten days later from exhaustion incident to septicemia. There was no hemorrhage from rupture of the tumor. The autopsy showed a well formed,

fibrous pseudo sac, which communicated with the aorta through an opening the size of the little finger. The case was discussed by Drs. Baldwin and McGavran.

"Hygiene of Menstruation," S. J. Goodman; discussion by Drs. Baldwin, Wardlow, C. F. Gilliam, Courtright and Warner.

Dr. Goodman summarized his paper as follows:

1. Menstruation varies in different women and from month to month in the same woman.
2. All rules are subject to individual variations.
3. Growing girls should be brought up with the same freedom of play and exercise as boys.
4. That bathing at the menstrual period is not harmful, but is beneficial and more necessary at this time than any other.
5. Women should follow the same regimen of life at this time as during the rest of the month.
6. The treatment to be applied to any individual case depends upon the diagnosis.
7. The usual office treatment as presented to the young women for the relief of the anomalies of menstruation is a rank fraud.
8. Prophylaxis is the best treatment. When this fails, mechanical and surgical treatment is the best.
9. Drugs do little good except to stimulate the appetite and digestion.
10. The curative efforts must all be directed to the removal of the cause and the production of surplus vitality and equilibrium of circulation.

The regular meeting of the Madison County Medical Society was held in London January 31, with Vice-President M. J. Jenkins in the chair. Considering the great amount of sickness, the meeting was very well attended. Dr. Smeltzer, who has recently moved into our county, spoke of some of the features of the New York State Medical Society.

The following officers for the ensuing year were elected: President, M. J. Jenkins, of Plain City; first vice-president, A. J. Strain, London; second vice-president, C. R. Fishel, Big Plain; secretary and treasurer, A. Delaplane, South Solon; censors, M. C. Sprague, of Summerford, and W. H. Christopher, of London; delegate to State Society, M. J. Jenkins, Plain City; auxiliary committeeman, W. H. Christopher, London

NEWS NOTES

W. J. Means, Columbus, is at Battle Creek, Mich.

Louis Kahn, Columbus, was elected president of the Board of Health.

J. W. Ringer, Cambridge, is convalescing from a serious attack of pneumonia.

J. A. Park, Columbus, slipped on the icy pavement February 6 and was rendered unconscious.

G. W. Roffey, who for the past six years has had charge of the hospital at the Franklin county infirmary, was found dead in his chair February 9.

Wm. Gillespie, Samuel A. Ellen and C. A. L. Reed are being groomed by their respective admirers for the presidency of the Cincinnati Academy of Medicine.

The Carolina Medical Journal, in its January issue, publishes an article from E. S. McKee, of Cincinnati, on "Division of the Fees." The intelligent compositor makes it read, "Division of the Feed." The intelligent compositor is not so far wrong, after all, and is a very much maligned individual.

The Cincinnati Academy of Medicine on January 28 voted to amend its constitution so as to commence its year with January 1 instead of March, in order to be in accordance with that of the American Medical Association and that of the Ohio State Medical Society. The change is to take place January 1, 1909.

The Obstetrical Society of Cincinnati held its February meeting at the office of W. D. Porter. A. G. Drury reported a case of rare interest, being herpes gestationis. Wm. Gillespie, the retiring president, spoke upon "Factors Which Determine the Position of the Fetus in Utero." Mangus A. Tate discussed "Vaginal Cæsarian Section."

G. W. Campbell, aged sixty-six, was arrested in Columbus February 24 and taken to the city prison, charged with the illegal practice of medi-

cine. Campbell recently located in Columbus and opened an office in the Clinton Building. He claims Chicago as his home. The action was instituted by the State Board of Medical Registration and Examination.

The regular meeting of the St. Alexis Hospital Alumni Association was held at the Hollenden, Cleveland, Thursday evening, February 6, at 8 o'clock. The program was as follows: "Symptoms and Treatment of Nephritis," A. C. McGannon; "Carbon Dioxide Snow as a Substitute for Liquid Air in Dermatology," M. Metzenbaum; report of cases, J. V. Kofron; report of cases—(1) atropine poisoning, (2) pregnancy, complicated with uterine fibroid and phthisis, J. E. Tuckerman.

On February 18 the tenth annual session of the Tri-State Medical Association convened at Charlotte, N. C. The meeting was a most successful one in point of attendance and also in the character of scientific work done. One of the chief features of the occasion was the address of C. A. L. Reed, of Cincinnati, on "The Public Relations of the Medical Profession." The remarks of Dr. Reed were along the lines of his recent work in awakening the civic conscience of the medical profession, and in his usual eloquent and forceful manner he showed the necessity and duty of physicians, as good citizens, to take an interest in municipal, state and national affairs.

P. S. Conner, Geo. B. Orr, Arch. I. Carson, M. L. Bates, H. P. Cole, E. S. McKee, A. B. Heyl, J. S. Meserve, W. S. Lock, Wm. Jordan Taylor, Orrin Lyle Reynolds and Orrin A. Reynolds were the medical men who sat down at the annual banquet of the Ohio Society Sons of the Revolution at the Queen City Club, Cincinnati, on Washington's Birthday.

Examinations for internes on the house staff of the City Hospital, New York, will be held on March 27 and 28 in that city. The City Hospital has a large general service, with about 800 beds, comprising all branches of medicine, and the length of service is eighteen months. All applications for the position should be addressed to the chairman of the executive committee, Smith Ely Jelliffe, 64 West Fifty-sixth street, New York.

The St. Vincent's Hospital (Toledo) clinic day program was as follows: 9 a. m.—"Depressed Fracture of Skull," Peter Donnelly; "Abdominal Section for Retro-displacement," George M. Todd; eye clinic, F. W. Alter. 10 a. m.—"Entero-enterostomy," James Donnelly; "Blood Transfusion for Leukemia," J. H. Jacobson; "Cystoscopy and Urethral Catheterization," J. G. Keller. 11 a. m.—"Demonstration of Treatment of Sarcoma by Coley's Toxine," N. W. Brown; medical clinic, nervous diseases, Louis Miller; medical clinic, W. J. Stone. 2 p. m.—Medical clinics, L. C. Grosh, W. A. Dickey and E. D. Tucker. 3 p. m.—"Abdominal Hysterectomy," C. N. Smith; "Correction of Talipes," H. H. Heath. 4 p. m.—"Repair of Fractured Femur," C. D. Selby.

The Lakeside Hospital Medical Society held its regular monthly meeting at 8 p. m., Wednesday, January 29. The program was as follows: "A Case of Post-operative Perforation of the Bowel," H. Robb; "A Case of Dermatitis," W. T. Corlett; "A Case of Early Perforation of the Bowel in Typhoid Fever," C. E. Briggs; "A Case of Leontiasis Ossea," C. F. Hoover; "A Case of Cerebral Lues, with Fever," K. B. Eisenbrey; "A Case of Ludwig's Angina," R. H. Cox; (a) "Report of a Case of Double Fracture of the Os Calcis," (b) "Report of a Case of Traumatism of the Knee-joint," W. Elliott; "Presentation of Specimen of Renal Calculus," J. R. Beiter.

The American International Congress on Tuberculosis and the New York Medico-Legal Society will meet in joint annual session at Chicago June 1, 2 and 3, 1908. The questions under discussion in the Tuberculosis Congress will be: (1) "Preventive Legislation," (2) "Human and Bovine Tuberculosis," (3) "Pathology and Bacteriology of Tuberculosis," (4) "National, State and Municipal Sanatoria." E. S. McKee, of Cincinnati, is vice-president for Ohio and secretary for the standing committee on preventive legislation. He has also been named as member of the local committee of arrangements for Chicago to take the place of the late lamented Nicholas Senn. The office for the Congress on Tuberculosis and the Medico-Legal Society is 39 Broadway, New York.

CONTRIBUTIONS TO THE LEGISLATIVE FUND DURING FEBRUARY.

George O. Beery, Lancaster.....	\$ 1 00
Marion County Medical Society.....	15 00
Washington County Medical Society.....	15 00
O. A. Dickson, Ashtabula.....	1 00
Hancock County Medical Society.....	10 00
Montgomery County Medical Society.....	50 00
Columbiana County Medical Society.....	3 50
Defiance County Medical Society.....	5 00
K. R. Teachnor, Leesburg.....	1 00
Mary K. Isham, Cincinnati.....	1 00
C. A. Lingefelter, Loudonville.....	1 00
W. H. Wert, Loudonville.....	1 00
G. W. Jacoby, Savannah.....	1 00
Jacob Fridline, Ashland.....	1 00
Warren County Medical Society.....	7 00
H. L. Burdsall, Hamilton.....	1 00
J. E. Torrence, Hamilton.....	2 00
Ross County Medical Society.....	15 00

Leo Danziger, Cincinnati, graduate of the Medical College of Ohio, 1892, member of the Cincinnati Academy of Medicine, Ohio State Medical Society, was shot and killed while at the bedside of a patient in Cincinnati, Friday, February 14. The shooting was done by a man named Gott, who had brought his niece to Cincinnati, supposedly for a criminal operation. She was taken very ill, and Dr. Danziger was called to treat her. The man seemed to have an insane fear that the girl would not get well, and, it seemed, had threatened the doctor and had tried to get another doctor to take the case, but he had refused. The doctor had expressed to his friends a fear that the man would kill him. It seems from the testimony of the girl that the men had had some words; the doctor had grappled with him, and Gott shot him, killing him almost instantly. The evidence seems to point to Gott as the author of the girl's condition, who, her relatives say, is only thirteen years of age. The people were from the mountains of West Virginia.

The Hodgkins Fund prize of \$1500 is offered by the Smithsonian Institution, Washington, D.

C., in accordance with the following announcement:

SMITHSONIAN INSTITUTION.

Hodgkins Fund Prize.

In October, 1891, Thomas George Hodgkins, Esq., of Setauket, N. Y., made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man."

In the furtherance of the donor's wishes the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations and issued publications.

In connection with the approaching International Congress on Tuberculosis, which will be held in Washington September 21 to October 12, 1908, a prize of \$1500 is offered for the best treatise that may be submitted to that congress "On the Relation of Atmospheric Air to Tuberculosis."

The treatise may be written in English, French, German, Spanish or Italian. They will be examined and the prize awarded by a committee appointed by the secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

The right is reserved to award no prize if, in the judgment of the committee, no contribution is offered of sufficient merit to warrant such action.

The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,

Secretary Smithsonian Institution.

Washington, February 3, 1908.

MARRIAGES

H. M. Fletcher to Miss Cora Sechrist, both of Cleveland, January 1.

Harlan Dudley, of Canton, to Miss Lulu Porter, of Oberlin, December 21.

J. R. Johnson, Arcanum, was married to Miss May Armstrong, of Celina, January 1.

H. A. Barclay, Denver, Colo., to Miss Grace MacCerron, of Fredericktown, January 2.

W. G. Kishler, Wapakoneta, was married to Miss Henrietta Hollenswörth, of St. Mary's, January 8.

DEATHS

J. B. Moody, Carrollton, Ohio, born July 17, 1810, died February 7, 1908. He practiced to January 20.

W. E. Mowen, Western Reserve, 1889, died at East Liverpool January 23, after a short illness from enteric fever, aged fifty.

T. W. LeCrone, Starling, 1881, died at his home in Columbus February 12 after a long illness from diabetes, aged fifty-six.

S. P. Drayer, Cincinnati College of Medicine and Surgery, 1872, died at West Alexandria January 19 from cardiac disease, aged sixty-six.

L. E. Beaghler, Rush Medical College, 1896, was instantly killed by being struck by a passenger train January 27 at his home in Middleport, aged forty.

S. A. Baxter, Cincinnati College of Medicine and Surgery, 1863, of Lima, died from apoplexy at the Christ Hospital, Cincinnati, January 5, aged sixty-eight.

W. C. Speece, Starling Medical College, 1884, died at Coramba, New South Wales, October 10, from pneumonia, aged forty-four. Dr. Speece was formerly a practitioner of Quincey, Ohio.

J. C. Graham, Starling Medical College, 1889, died at his home in Denver December 25, aged forty-four. Dr. Graham lectured on bacteriology at the Starling Medical College from 1893 to 1894, and went west in search of health. He had a large circle of friends.

On January 30 S. W. Fuller died at the home of his daughter in Bellefontaine at the ripe age of ninety-four. In his death the medical profession of Ohio lost one of its oldest and most

respected members and Logan county one of its best known and most revered citizens. The following tribute is from the pen of a fellow townsman: "He used his profession for the good of mankind and not for the upbuilding of a fortune, and who can tell of his deeds of charity covering the long period of his residence in Bellefontaine? They are countless, and his universal benevolence, his love, his desire to alleviate want, to restore the sick to health and to better the condition of the unfortunate in all walks dominated his life, but not of him did the world learn of these things. No. His was the quiet way of doing good, the unobtrusive way, and without words about it he went about day and night exerting his skill and ministering lovingly in the homes of the lowly as well as in the homes where want was unknown. And, oh, how welcome was his presence everywhere! Kindness in his face, kindness in his voice and kindness in his deeds won for him a love and reverence rarely bestowed, and all spoke of Dr. Fuller only to praise him or 'with a smile that told the whole story of affection.' Simplicity was a characteristic of Dr. Fuller, but he was a strong man, a skillful and a learned man, and his opinions were sought and valued by the members of his profession to the last days of his life. He was unfaltering as a champion of right, and the religion of his fathers was his religion, and he loved the church and sympathized with and aided all of its activities. He so lived that men needed not to be told that the Father in Heaven was his guide. For his profession Dr. Fuller also had a deep and abiding love, and he was progressive and studious and interested in the advance of the science of medicine as long as he lived, and ever fatherly and helpful to his brother physicians, who gave him reverence that was beautiful. And, though Dr. Fuller is gone from earth's little while, the influences of the 'serene and silent beauty of his holy life' will live on and on." Dr. Fuller was born in Athens county January 25, 1814, and was a resident of Bellefontaine for over half a century. The funeral services were largely attended by his fellow citizens, and the floral tributes were of unusual beauty, especially

those of the Logan County Medical Society and the Presbyterian church, of which he was an elder. Six physicians of Bellefontaine acted as pall-bearers.

It is the rule for a fecal fistula following an appendicitis operation to heal spontaneously.

Plaster-of-paris can be instantly removed by rubbing the wet hand with granulated sugar—or syrup.

After fracture dressings are applied the X-rays will show if any displacement has recurred during the application of the splints or fixation apparatus.—*DaCosta*.

The swelling incident to a fracture too often misleads the physician; the contour of the limb should not be used as a criterion of a good bone position.—*Fletcher*.

In the treatment of a fracture, the result is good when we have given the patient the maximum degree of function, compatible with the kind and location of the injury.—*Fletcher*.

If a nerve is divided in a recent wound it should be sutured with very fine catgut or silk. It takes from three to nine months to restore function in a divided nerve.—*Foote*.

The burden of proof in any mal-practice litigation is always upon the party attempting to show that the physician has been guilty of a lack of skill, or of a want of care in the treatment of a given case.—*Thompson*.

Fractures have been too much neglected in the modern surgical amphitheater and text-books, and the percentage of bad results is proportionately increasing. Imperfect reduction, improperly applied splints and casts, and prolonged immobilization still produce their pernicious results.—*Murphy*.

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No. 4

ORIGINAL ARTICLES

INJURIES TO THE ELBOW.

BY L. G. BOWERS, M. D.,
Dayton.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

Cases of fracture and dislocations involving the elbow, when not properly diagnosed and treated, may cause impairment of its function, in some cases amounting to complete ankylosis. The overproduction of callous is unavoidable, but we can properly diagnose and maintain proper relations of fragments by splint, staple and wire. There is much less danger to the subsequent functions of a joint in opening same under proper aseptic precautions than to leave fragments of bone loose in the joint cavity or in faulty position.

Before taking up the diagnosis of malconditions of the elbow joint, it might be well to first briefly discuss its anatomy.

This joint is a hinge joint in which three bones enter into its construction. The lower end of the humerus has two trochlear surfaces; the inner, the lower one, which is received into the greater sigmoid cavity of the ulna which admits the motion of flexion and extension. The lesser trochlear surface or the radial head of the humerus, articulates with a cup-shaped depression of the head of the radius; on each side of the lower end of the humerus is a prominence, called the external and the internal condyle, the latter being much the larger, therefore more liable to injury. The trochlear surfaces of the humerus are divided by an elevation into two parts, the external being shorter and the internal, as before stated, articulating with the greater sigmoid cavity. The internal trochlear surface projecting lower than the external or capitellum head, produces what we call the carrying angle of the elbow, which is an angle of about ten degrees, enabling a person carrying a pail to rest the elbow against the body. In front of the trochlear surface and between the trochlear and capitallum of the humer-

us is a depression, the coronoid fossa into which fits the coronoid process of the ulna; and behind these articulating surfaces is another depression called the olecranon fossa, into which the olecranon process of the ulna is received. The radial head of the humerus articulates with a cup-shaped depression on the head of the radius. The lateral surfaces of the head of the radius articulates with the lesser sigmoid cavity in the side of the coronoid process, thus allowing the supination and pronation of the forearm.

The upper end of the ulna presents two processes and two cavities; the larger the olecranon process, is a thick curved piece of bone with a triangular end which is continuous with the under border of the ulna, to which is attached the triceps muscle. The lesser process, the coronoid, extends forward from the upper forepart of the ulna, giving attachment to the brachialis anticus. The olecranon and the coronoid processes on the articular surface are concave, together forming the greater sigmoid cavity; the lesser sigmoid cavity is a depression on the outer side of the coronoid process into which is received the lateral surface of the head of the radius. The articular surfaces are covered by a thin cartilage and are bound together with ligaments. The joint cavity is lined with a synovial membrane.

One other condition is of great importance in the diagnosis of injuries in children by a skiagraph, that is, the development of bones, a knowledge of the period at which ossification takes place. It has been shown by some investigators, particularly Barbat, that these ossific centers develop one year sooner than most text-books advise. We find it necessary in children under sixteen years of age at least, to take a skiagraph of both elbows for comparison to make an accurate diagnosis.

In the diagnosis we will first speak of some of the landmarks to be found by palpation and inspection. In case of the extension of the arm, if you will place one finger on the internal and another on the external condyle, and the third or middle finger at the end of the olecranon process

in a normal elbow, the fingers should be in a straight transverse line. When the elbow is flexed to a right angle you will find these surfaces on a plane, and any deviation from these positions is abnormal. Normally, there is not any lateral play in an elbow when extended, excepting in infants, and when this is found it is an indication of a fracture or a recent dislocation.

In case of an injury where the elbow is flexed, you will find in a backward dislocation or in a fracture of the lower end of the humerus above the condyle, the point of the olecranon projecting backwards; consequently, the straight posterior skin line of the humerus when seen from the side is obliterated. Usually, in a backward dislocation of the elbow, the coronoid process of the ulna is fractured; that is, we have a dislocation complicated by a fracture.

One of the common injuries of the elbow mistaken for a sprain, skiagraphs have shown to be a dislocation of the head of the radius. The symptom which most usually points to this condition is the lack of ability to completely extend the arm. I think this condition would always be diagnosed by palpation if we were to grasp the capitellum head of the humerus between the thumb and forefinger, then rotate the forearm, when we should feel the head of the radius rotate under our fingers if it be in proper position.

There might be many other things to be mentioned in the elaboration of the proper diagnosis of injuries of every nature of the elbow, by these old and antiquated ways, by the use of palpation, crepitus and inspection. But the day has come—not only come, but is here—when it is recognized that the doctor is not doing his full duty in the diagnosis and treatment of these injuries without the use of the X-ray. How often have we all temporized when we have been called to see an arm which was badly swollen, in case of such injuries, by putting on temporary splints, not always because of the excessive swelling, but usually because we are not certain of our diagnosis.

I read a recent article by a very good author and writer of a text-book, wherein he makes the statement that no difference how slight the injury is to an elbow we should always give an anesthetic to properly determine the extent of the injury and for the application of dressing. Surely this author has better touch than most of us to make out when fragments of bone are interposed between the ends of the bones of the joint, or he has had little experience with the application of the X-ray, of which he does not make any mention.

On several occasions I have had cases brought to me for some loss of motion or for complete ankylosis, and find by skiagraph that the fragments are not touching or in proper apposition, or there is a displaced fragment within the joint cavity. In one case we found a greenstick fracture of the ulna, which healed with its convexity toward the radius; also there was an epiphyseal separation at the head of the radius, which prevented apposition of the displaced fragments, and as a consequence there was deformity and non-union.

We have skiagraphed a number of cases in which there has been some faulty motion discovered, especially in young children, where we found a dislocation of the ulna which had existed for weeks.

I do not mean to say that the X-ray in the hands of an amateur nor a fine skiagraph in the hands of an inexperienced person can always be relied upon, but we do believe that when the X-ray is properly applied and interpreted it will give us a fairly accurate picture of the exact condition by which we can intelligently treat and prognose the case, if we are familiar with the picture of a normal joint.

In cases of children on account of different periods of ossification, due somewhat to their nutrition, it is well to skiagraph both elbows for comparison. In every case it is necessary to take at least two skiagrams of the elbow, one to be taken with the elbow extended and the condyles as near as possible on a plane parallel with the plate, the other to be taken from the side at right angles to the former with the elbow flexed at a right angle. By following this method it not only gives you a picture of the fracture or dislocation, but also the alignment of the fragment with the shaft of the bone and the position of any misplaced fragment.

I had an experience in my early use of the X-ray which I will relate to impress the importance of this step on your mind. A child was brought to me with a limited motion of his elbow, which was considerably swollen, the injury having occurred three weeks before. I took a skiagram of it and found a fragment of the condyle interposed in the joint, as I supposed between the olecranon articular surface and the trochlear surface of the humerus. We operated a few days afterward and cut down on the inner side of the elbow, and to our dismay we found no fragment. Then it occurred to us that we had not taken a skiagram at right angles to the first one and that our fragment might be on the opposite side. Acting on this surmise, we cut

down on the outer side of the elbow and soon had our piece of bone, which relieved the joint.

Our patient made a good recovery and regained nearly complete restoration of function of the joint, and of course the family thought that it had been treated scientifically by an experienced operator.

Briefly, we will speak of some points of treatment.

In case of dislocation we would always advise giving an anesthetic for its reduction, because in complete relaxation we are not so liable to fracture or splinter a bone. I saw a case recently which was splintered in the reduction of the dislocation. Following its replacement, we believe all the dressing that is necessary is to put a bandage on the arm, smoothly, when flexed, and carry it for a day or two in a sling, having the patient take it out once or twice a day and give it a little passive then active treatment.

In case of dislocations of the head of radius, it is sometimes necessary after reduction to flex the arm and place a compress in the angle for a few days to keep same in place.

When we have a fracture of the lower end of the humerus just above the condyles, in which instances the lower fragment is displaced backward and the upper forward, I find that complete flexion with a pad placed in the angle and a small weight suspended from the elbow and the arm firmly bandaged, will secure the best position of the fragments for union. In all cases of displaced fragments of bone in the joint, which cannot be accurately maintained, I believe it to be wise and our duty to cut down on same and maintain them in place by a nail or wire. In shafts of bones we will have no loss of function if we do not have an accurate end to end position, but this is not true in the joints, especially in such a complicated joint as an elbow. It is our plain duty to skiagraph elbow injuries for diagnosis and then to skiagraph them to determine if we have maintained the proper position of the fragment with our splints. Cases of fracture of the olecranon, when transverse, may be maintained in position by an extension of the arm and binding the two parts together by adhesive straps, pulling in opposite directions.

Or, again, if there be no fascia or blood clots between the fragments, the fragment may be maintained by driving a nail through the end of the olecranon into the shaft of the ulna. There is one deformity or impaired function which I believe deserves mention; that is, fracture of the greater trochlear surface of the lower end of the humerus. When the fragments are not put or

maintained in proper position, there will be a twisting of the arm in flexion and extension due to the greater sigmoid cavity of the olecranon following necessarily this new position of the trochlear surface and internal condyle. I have seen two or three cases in the last year in which the doctor was at a loss to explain this faulty movement, but in which it was easily demonstrated by a skiagram that the above was the cause.

The best universal splint, in my judgment, for an elbow is a hinged one, with a strap of iron attached to the side of each part of the splint, with a slot in the iron strap and a thumbscrew to maintain the splint at any angle desired.

It is necessary to have a long and somewhat curved hinge to increase the width at angle for a complete flexion of the elbow.

I believe that a complete flexion is the best universal position for a fracture of the elbow. The arm and forearm should be bound to each part of the splint, first fixing the arm to one part of the splint and then grasping the arm above the elbow and while making traction on the hand bind the forearm to the second part of the splint.

The elbow can now be flexed to any desired angle and fixed by tightening the thumbscrew.

The elbow may be given passive or active motion at any time with the above splint without disturbing the dressing by loosening the thumbscrew.

We should begin passive motion of the elbow early in cases of injury. Exudation fixes the joint early. I believe that too long continued fixed dressings have been the cause of many permanent losses of functions of the elbow.

DISCUSSION.

James Donnelly, Toledo: The elbow joint is the second largest joint in the body, and injuries to this part are very common. It is essentially a hinge joint limited to flexion and extension, and describes an arc of about one hundred and fifty degrees from full extension to full flexion. The head of the radius is held in position by a firm ligamentous band, and allows a rotation of one hundred and fifty to one hundred and sixty degrees from complete supination to complete pronation. The condyles and the olecranon are prominent land marks, and their relations to each other should be well understood by the surgeon. It is always advisable for the surgeon to bare the uninjured elbow so as to make comparison of the joints.

The anatomical relations of the elbow joint are very complicated, and after injuries, sprains or fractures about this joint swelling takes place very rapidly and obliterates to a considerable extent the normal land marks.

In supracondylar fractures there is usually backward displacement; this form of fracture as a rule does not extend into the joint.

In fractures of the condyle, the fracture always extends into the joint cavity. Fractures of the condyle are always the result of direct or indirect force, but they are usually the results of indirect violence. Fractures of the external condyle are very much more frequent than the internal condyle. Many authors believe that 75 per cent. of the condyloid fractures are of the external condyle.

In fractures of the olecranon the line of fracture always extends into the joint.

In any fracture in which the line of fracture extends into the joint, the joint quickly becomes filled with blood. Oftentimes in fractures of the condyles there is rotation of the fragments, making it very difficult to coaptate the broken surfaces without cutting down over the seat of fracture.

Where one or both condyles are fractured there is usually some considerable separation of the condyles.

In the treatment of fractures of the condyles it may occasionally be necessary to remove the condyle. Kocher reports good results from some cases in which he removed the external condyle. Formerly I treated all fractures about the elbow joint with the arm in the extended position; lately I have been treating them in the acutely flexed position. I believe that I am getting better results in the acutely flexed position than when I treated them with the arm in the extended position.

It should be the aim of the surgeon to replace the fragments as near as possible in their normal position; sometimes it will be necessary to resort to wiring the fragments to the shaft of bone.

After the fractures have been satisfactorily reduced it is best to keep the joint in a flexed position for two, or the longest three, weeks; then gentle movement should be made in the joint, combined with massage.

In cases in which there would seem to be excessive exudate, passive movement should be made by the end of the second week.

Fractures of the olecranon as a rule should be wired under the strictest antiseptic precautions. Anesthetics should always be given in fractures of the elbow joint, for the purpose of making examination and coaptation.

In all cases of fractures of this joint, the X-ray should be used for the purpose of diagnosis, and after reduction and fixation have been made, so as to be sure that the fragments are in proper position. A vertical and a transverse exposure should always be made.

This is a very important subject and I am very much pleased with Dr. Bowers' paper.

John L. Stevens, Mansfield: I do not think there should be any case of an injury to the elbow of any consequence in which the X-ray should not be used.

A lady had been to one of our neighboring towns, and had her elbow injured in a runaway accident. She went into the town, was put under an anesthetic, and a diagnosis of fracture made of the injury. She was sent to her home and put herself under the care of Dr. H. The physician in the first town wrote a letter to Dr. H., stating it was a fracture, and advised

treatment according to Scudder. After the swelling began to subside, Dr. H. found that something was radically wrong. He brought her to me for examination, which was about two weeks after the injury, and we found a backward dislocation without fracture. We put her under an anesthetic in my office, and three of us worked with her for two hours trying to reduce it, but as we were not prepared for a cutting operation, and did not have the patient's consent, we did nothing more. Afterwards Dr. H. told her what would have to be done in order to reduce it. She left him, and the last he had heard of her she had gone to Youngstown to a bone-setting specialist; I believe that is what he called himself. I don't know what has become of the case, but it shows how we may err in diagnosing, even under an anesthetic, any injury of a joint.

L. G. Bowers, Dayton: I have not very much to add, with the exception that I was a little surprised to hear the preceding speaker say that the external condyle was fractured the most frequently. Nearly always, in my experience, it is the internal condyle that is fractured; and there is reason for it, because the internal condyle projects inward more prominently than the external does outward. I remember a year or two ago I had three cases of fracture of the internal condyle within a week. I do not often see a fracture of the external condyle.

As to the proper time to begin movement of elbow, I never wait two or three weeks, as suggested by one of the speakers. By using the splint suggested in my paper, the set screw can be loosened and passive or active motion be given to the elbow without disturbing the dressing. In my own experience, if a passive movement is used early, the patient will get an active flexion much earlier.

CEREBRAL PNEUMONIA.

S. P. WISE, M. D.,
Millersburg.

[Read before the Ohio State Pediatric Society, Cedar Point, 1907.]

The cerebral complications in pneumonia often present a clinical picture which is very similar to that of true meningitis; in fact so much so that the differential diagnosis is exceedingly difficult if not entirely impossible. It is to this phase of the subject that I especially desire to call attention in this paper. It would seem somewhat paradoxical to speak of "Cerebral Pneumonia," and I would have scarcely had the temerity to make use of the term, were it not that Fischer in his excellent work recently issued, has adopted it in his classification of the different forms of the disease.

During the season of last winter and spring we had more cerebral manifestations complicat-

ing our cases of pneumonia in children than I have witnessed for many years.

The following clinical sketch is fairly typical of our cerebral cases in the order in which the symptoms usually occurred. The disease was often ushered in with a chill or at least slight rigors, high temperature, 104 to 106 F. from the beginning; vomiting which continued for several days; and sometimes convulsions marked the onset. Severe cephalalgia which continued as a rule until the patient lapsed into a state of sopor or semi-coma. In some cases there was unilateral spasms, followed by twitching of the shoulder and lower extremity. Patellar reflex absent on the affected side. Regional hyperaesthesia: Tache cerebral well marked in several cases. Rigidity of the muscles of the nuchia but not to the degree of opisthotonos. Some retraction of abdomen. Twitching of the muscles of the eye and in some cases rolling of the eyeballs. Extreme contraction of the pupils with subsequent unilateral dilatation and sometimes dilatation of both pupils, but the latter ocular symptoms were only noticed in cases which terminated fatally.

When we are confronted with such a symptom complex as above described we may well hedge in our diagnosis lest we may be obliged to acknowledge our mistake in a day or two. This is especially to be feared if the physical signs of pneumonia are obscure and ambiguous as they frequently are at the beginning of the disease. It is true that most all of these symptoms can be ascribed to the high temperature which usually prevails and especially to the sudden incursion of the high heat. Still some of the symptoms are so absolutely true to the meningitic syndrome that the most astute diagnostician may fail in differentiating between a serous meningitis and functional disorders of the brain.

A fresh accession of fever which is more intense than the original one must always arouse suspicion. So also a suddenly arising mild delirium, wandering and hallucination are important signs. The only characteristic feature of the delirium is that it is soon followed by stupor. Headache is persistent in all cases until sopor supervenes. Sopor and coma are very important if they appear a considerable time before the edema of the lungs sets in, which ends the scene in the majority of fatal cases. A slight degree of rigidity and pain in the neck is always a valuable indication; but it cannot always be depended on, as it has been found present in cases in which the postmortem revealed not a trace of meningitis. The pupils are generally

contracted in the beginning and later on there may be unilateral dilatation, but these conditions are important only in so far as they accompany other significant symptoms. Spasmodic movements of the eyeballs are untrustworthy as they occur independently of meningitis. In fact the only ocular symptoms that are pathognomonic of basilar affections, are complete paralysis of the abducens or the motor oculi muscles. Even complete hemiplegia, occurring a short time before death has been found to be due to edema of some portion of the brain.

It is therefore evident that a diagnosis of meningitis during the course of pneumonia, should not be made from one or a few symptoms, but a conclusion must be based upon a preponderance of clinical evidence.

The older writers regarded the cerebral complications of pneumonia as a metastatic meningitis, and that the inflammation was confined to the convexity; the base and the upper part of the cord remaining intact, thus doing away with many of the most valuable diagnostic points. They also asserted that the high fever and the febrile processes generally, produced a diminished reaction and modified excitability, so as to obscure the symptoms of a meningitis which otherwise would have presented well marked and positive indications. The disease was supposed to be caused by the same poison or morbid influence as that which produced cerebro-spinal meningitis. In support of this conclusion we find the recorded statement that out of thirty autopsies, in cases of pneumonia, held by Immerman and Keller, of Germany, they found nine cases in which the pathological lesions of meningitis were present. They attributed this fact to an epidemic of cerebro-spinal meningitis which was prevailing at that time.

Since the Fraenkel diplococcus is recognized as the specific germ of pneumonia, and we know that this micro-organism is frequently found in the meninges as well as in the nasal and other secretions of the body; and that an inflammatory condition usually results from its presence we are naturally led to the conclusion that whatever cerebral disturbances we find in pneumonia must be of an infectious character, essentially due to this specific organism or a toxin which it secretes. Granting this to be true the problem is easily solved. We simply conclude that whatever symptoms cannot be ascribed to hyperthermia must be due to toxemia and that in those cases in which the disease terminates in a crisis a rapid elimination of toxins takes place simultaneously with the subsidence of the fever; and the cerebral phe-

nomena disappears at once. I have had experience though which does not conform to this idea. I have met with cases in children as well as adults, where the patient remained in a state of furious delirium after the fever had entirely subsided, and resolution of the pneumonia was progressing with remarkable rapidity. Now if the delirium had been due to cerebral toxemia why was it that the administration of a suitable hypnotic producing some hours of good sleep resulted in complete mental restoration as if by magic?

The sequel would prove that the delirium in those cases was perpetuated by hyperemia rather than by a toxemia.

I think the cerebral disturbance in some cases of pneumonia is aggravated by the senseless administration of large doses of strychnia, which is taught in modern text-books and is practiced especially by the younger members of the profession. In the effort to prevent the traditional heart failure, cerebral hyperemia is produced, which will surely result in exhaustion and death if such a course is persisted in. We all know that the nerve cell will respond to an irritant up to a certain point when paralysis ensues. So that excessive doses of strychnia will produce precisely what they were intended to prevent. It seems to me that modern medicine has lost sight of the danger of exhaustion of the nerve centers in all forms of acute febrile diseases, and that the importance of rest and nutrition is badly under estimated.

A valuable lesson can be learned by observing nature's restorative efforts, and her methods of dispelling disease. It has no doubt been the experience of many of you that you have had a patient whose life seemed to hang merely by a thread. As you approached his home on your morning visit it was a great relief to notice that there was still no crepe on the door. As you entered the home you were greeted with smiling faces and were told that the patient had fallen into a peaceful slumber which had continued for a number of hours and had awakened perfectly rational. Now this is precisely what nature will often do, especially if she is aided by the timely administration of proper remedies.

But such a favorable turn can scarcely be expected if the patient is kept on the verge of convulsions with enormous doses of strychnia. In fact the patient's destiny under such treatment would seem to hang on the question of whether he is immune to the lethal action of the drug or not. I have seen several cases in which the discontinuance of the strychnia and

the administration of an opiate was followed by the most happy results.

French neurologists have recently advanced theoretical conclusions on the subject of cerebral disease which may lead to a solution of the problem we have now under consideration. They have added to the nosology of cerebral affections a distinct disease which they name "meningism." They define this disease as a morbid state characterized by a meningitic syndrome without intracranial inflammation. They recognise three varieties of meningism, the reflex, irritative and toxemic. The latter is probably the form of disease which occurs in pneumonia and in the course of other acute infectious diseases. It is gratifying to find a name which expresses the pathology of the disease at last in a negative manner, and it is to be hoped that such glaring confessions of ignorance as the term "Pseudo meningitis" and "Meningeal irritation" will disappear from medical literature. It of course requires quite a fertile imagination to conceive of a meningitis without an inflammation and its attendant lesions, but we may form a conception of a meningism in which the disease processes are limited to circulatory disturbances, or to the action of the special toxin which acts upon the cortical or sub-cortical cells producing the characteristic phenomena of the disease without an evidence of inflammation.

An analogous condition is found in those fulminating cases of cerebro-spinal meningitis where the autopsy reveals no lesions other than an intense congestion. It is highly probable that a hyperemia exists in meningism which would result in inflammation if the condition continued for sufficient length of time. We had two fatal cases in our experience, but were not granted the privilege of an autopsy. We had, however, formed the conclusion that in those instances where paralytic and pressure symptoms manifest themselves and death results must be cases of meningitis, while those in which all cerebral symptoms vanish when the fever subsides are typical cases of meningism. We are assured though, by writers who are authority on this subject that our conclusions are not correct, but that cases of meningism may die without there being any discoverable meningeal lesion. We are therefore justified in the inference that the term meningism stands for a cerebral syndrome which is as yet veiled in obscurity. Dupré very aptly says: "The forms, acute or chronic, cerebral or spinal of meningism, are of nice diagnosis and of reserved prognosis * * * The pathology of

these 'accidents,' inexplicable by the negative results of autopsies, seems attributable to an action exerted on a cerebral cortex, hereditarily predisposed, by poisons of external, internal or microbic source. * * * The solution of the pathogenic problem is reserved to the technic of the future which will demonstrate lesions invisible to dynamic pathology."

REFLEX DISTURBANCE OF DIGESTION.

ROBERT H. GRUBE, A. M., M. D.,
Xenia.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

The digestive tube is more tolerant of insult than any organ of the body. Acrid and irritating substances can be put into it, myriads of parasites may infest it, and if the injury wrought be short of destruction of tissue, its powers of reaction and repair are such that the normal condition may soon be restored. On the other hand, no other bodily organ is so sensitive to reflex disturbance. As an extreme instance of this, witness the total cessation of digestion in a perfectly healthy tube caused by the receipt of a severe mental shock.

The field of reflex disturbances of digestion is thus a very broad one, and I shall limit my attention to those arising in the abdominal cavity.

The mechanism of the abdomen is marvelously contrived to secure the freest and most insensitive movements necessary for perfect function.

Kelly tells us that the omentum and the peritoneum covering the abdominal viscera are without nerves of pain sensation, but that the parietal peritoneum is supplied with pain sensory nerves from the spinal ganglia—a fact of very great importance for this study. If now the normal movements of the digestive organs come to be attended by sensory effects even though they only occasionally rise to the point of conscious pain, we can see how the delicate mechanism of the reflexes might be deranged and peristaltic movements checked because the animal organism abhors a pain.

This interference of peristalsis, purely reflex in its character because there is not necessarily any mechanical obstruction, sets in motion a vicious series of events that cripple, if they do not destroy, the organism; the capacity for digestion is lessened, excretion is delayed and toxic substances are absorbed to work mischief wherever they circulate.

Surgeons everywhere have noted the presence of peritoneal adhesions in nearly every case requiring abdominal surgery, and necrotomists have

reported the finding of them in from 12 to 30 per cent. of necrotomies, where they have been looked for. These adhesions are found chiefly along the course of the colon, most frequently in the region of the appendix and the gall bladder. They are evidently of inflammatory origin, and it is generally impossible to account for them by anything to be found in the anamnesis. The reason for this is, as I believe, that we cannot, or do not, go far enough back in the history, for everything points to their infantile origin.

The dreaded second summer is a tradition in nearly every home where there is a baby, and for a good reason because, until recent years, the infant who reached its third year without an attack of colitis of some degree of intensity was indeed fortunate.

Long ago Virchow taught that in colitis the greatest intensity of inflammation is in the cecum, then the hepatic flexure and so on down, the intensity decreasing with the descent. He thought the inflammation was due to the local action of some irritating substance in the feces because there was fecal accumulation at these points, but Flexner recently experimenting on rabbits with the dysentery bacillus, found that he could not produce a colitis by feeding cultures to the animal, but he could by injecting the pure culture into the blood vessels establish a typical colitis with the clinical picture just cited from Virchow. He deduces from these experiments the conclusion that colitis is caused by a toxin which is excreted by the colon, in the walls of which it produces cellular necrosis. He believes that the same process occurs in the human being, only that here the formation of the toxin is by the bacilli in the small intestine where it is absorbed, and carried by the blood to the large intestine.

It is rarely that colitis is attended by a peritonitis clinically discernable unless there is a perforation; nevertheless the peritoneal layer of the colon is involved. Colitis is not a local reaction to microbic invasion, but a reaction to a cytolytic toxin which affects all the layers of the colon. As we are now concerned only with the serous layer, I will consider it only.

If the organism survives the attack and partial destruction of the endothelial cells the work of repair soon begins and a coating of lymph fibrin is thrown over the serous surface as a temporary protection. Salutary as such a proceeding is, yet in this instance it becomes the source of the mischief. Into this coating of lymph fibrin the irritated surviving cells of the connective tissue and capillaries penetrate, making the temporary structure a permanent one.

Adami, in his splendid work on "Inflammation," says: "Cells (of endothelial origin) which have

not become free, evidently, according to Ranvier, take an active part in the formation of peritoneal adhesions. Muscatello, Graser and Borst unite in the opinion that the endothelium of serous surfaces can form connective tissue. More recently Baumgarten has brought forward what appears to be definite evidence that vascular endothelium under mild grades of irritation gives rise to fibro-blasts and connective tissue."

These adhesions vary in their structure from a delicate cobweb form to dense fibrous bands, which latter by their retrogressive shrinking may cause organic displacements, or constrictions that may have the gravest results. In any event we can readily understand how, if a band of connective tissue passes from a freely movable bowel to the sensitive parietal peritoneum there will be distress reflected to the bowel, inhibiting further peristalsis if the amount of motion be normal, or violently painful if excessive, as in cramps.

I believe that the vast majority of persons suffering from chronic constipation have these adhesions, for in every case of catarrhal appendicitis and gall bladder infection that I have seen operated upon by the surgeon or that has come to a necrotomy, they have been present, and we all know that in these affections chronic constipation is a constant symptom. Children who are subject to attacks of "bellyache" after slight indiscretions of diet, or who are subject to pain in the side, abdomen or lower chest-wall upon unusual exertion, almost certainly have their colonic adhesions.

The ultimate results of reflex disturbances of digestion are more serious than the immediate. Once the obstipation is established there follows a loss of appetite and an inability to digest and assimilate enough food, especially fats and carbohydrates, to supply the work demands of the body, leading to over-indulgence in proteids and its attending evils. The patient becomes a physical bankrupt and often a nervous wreck, a ready prey to tuberculosis and similar infections.

Adhesive bands at the pylorus, even if they do not cause mechanical obstruction, are apt to cause gastric stasis, dilation and ptosis to be followed by disease of the mucosa—gastritis, ulcer, and possibly cancer; in the gall bladder region, by bile stasis and infection and many times gall stones; in the cecal region by catarrhal affection of the appendix, and later by acute appendicitis. The remaining portions of the colon are by no means free from trouble, but they are involved much less frequently than these.

The diagnosis of abdominal adhesions is inferential rather than positive, yet under certain conditions they become evident enough and would

be oftener found if they were more diligently sought for than they usually are. Deep pressure at the McBurney point, and over a point two-thirds of the distance from the end of the ninth rib to the umbilicus will generally elicit tenderness greater than over the corresponding points on the opposite side if adhesions are present.

The treatment of the disturbances of digestion due to reflexes from abdominal adhesions is, first of all, prophylaxis. The close relation of artificial feeding to enteric disease in the infant has long been recognized. Among two thousand fatal cases reported, but sixty, or 3 per cent., were exclusively breast-fed. That it is not so much the character of the food, so it contains the elements necessary for growth, as it is its infected condition which causes the trouble, is a more modern discovery and being acted upon is giving splendid results. The use of technically clean food and the prompt treatment reduces enteric disturbances to nil except in the large cities. Second, palliative. When once the mischief is done efforts should be directed to guard the child against errors of excesses of diet, and attention given to the general hygiene which should be the best possible. Exercise in the open air should be insisted upon. Constipation should be combatted by the sedulous cultivation of regular toilet habit, suitable diet, the mildest of cathartics and by gentle massage of the abdomen. Children subject to colicky attacks should especially be watched.

Third, the radical. It is the universal experience of surgeons doing abdominal work to find in interval operations very little inflammatory trouble but many adhesions, which alone being broken up often give complete relief from the trouble. It is the custom generally to regard these adhesions as the result of previous attack, or attacks, but in the absence of proof of perforation there is no evidence of purulent inflammation having occurred within the peritoneum, and the acuteness of the attack ended when the contents of the inflamed gall bladder or appendix were discharged into the intestine, they are not the result therefore of the inflammation but the cause of it.

The results of operative interference in these cases are among the most gratifying in surgery. To see a workingman, thin, poorly nourished, and having to stop work one or two weeks in each quarter on account of recurrent appendicitis, changed to a hearty, strong man by an appendectomy is surely a gratification, and every surgeon who does much of this work is constantly experiencing it.

The frequency with which gall bladder and ap-

pendix disease are associated in the same patient should lead the surgeon to carefully examine both these regions both before and during the operation, and if adhesions are present, break them up, otherwise the trouble may be only partially relieved and a second operation made necessary. In some cases indeed, it would be well to explore the entire colonic tract.

Organs of the body, like the whole of it, acquire habits good and bad which, when once formed, are hard to change, and in these cases, after years, perhaps, of perverted function, an immediate return to normal will not be achieved by the removal of the cause of the trouble. Careful effort will often be required for the re-training of the digestive tract to do its work in the normal manner. While immediate improvement is usually observed the better part of a year is most often required for complete restoration of function.

Summarizing then, colitis in infancy is the chief cause of abdominal adhesions, which by attaching an insensitive but kinetic bowel surface to a sensitive peritoneal surface endows peristalsis with sensation. This is an insult which the bowel resents by lessening its peristaltic movements to a point where sensitiveness ceases.

Lessened peristalsis lowers the ability to digest and assimilate food and interferes with the elimination of water products. These in turn lead to:

A lowered vitality and resistance to infections and ability to build up and repair tissue. The resorbed waste products injure the vascular tissues throughout the body.

The need of correct infant feeding and of prompt attention to enteric disturbance in infants is emphasized.

Surgical interference should be advised where the trouble is so great as to invalid the patient or imperil his life. This can be accompanied by the assurance of a high probability of success.

A CONTRIBUTION TO THE STUDY OF LIPOMATOSIS.

BY J. J. THOMAS,
Cleveland, Ohio.

[Read before the Ohio State Pediatric Society, Cedar Point, 1907.]

Lipomatosis may be defined as an abnormal production of fat, and also as a morbid tendency to growth of fatty tumors or fatty degenerations. A morbid condition is presumed, to distinguish it from obesity, or excessive corpulency, which is usually entirely compatible with perfect health,

and, at most, may be considered, according to Goodheart, a normal abnormality. Obesity, as a rule, is due to errors of diet or faulty metabolism, although Osler calls attention to the fact that chlorotic girls with depraved or poor appetites may be quite plump. In regard to the last mentioned conditions, however, future investigations may place them under the category of lipomatosis.

The whole subject is as yet veiled in obscurity, and for that reason the case I have to report may be of some interest. It concerns a female child, aged four and one-half years, who was brought by her mother to the Lakeside Hospital dispensary March 3, 1907. She was so excessively fat as to immediately attract the attention of every one. Her mother brought her with the hope that something could be done to relieve her, as her weight was becoming burdensome to herself and family. The family history was good.

The other children are normal in size and weight. She had had no infectious diseases. Until four months prior to her appearance at the clinic she was not noticeably abnormal in size, nor was she different from other children as to disposition or actions. She has always had a good appetite, but at the onset of her increase in size she began to consume rather larger quantities of bread and butter than usual, sometimes eating six or eight generous slices of bread with butter. This suggested to a physician, who was later consulted, a correction of the diet. In spite, however, of a rigid anti-fat regime, she gained ten pounds during the month previous to her visit to the clinic, at which time she weighed seventy-three pounds. According to Holt's tables, the normal weight for a girl of five years of age is 39.8 pounds (18.6 kilos), and height 41.4 inches (105.3 cm.). She was as tall as her six-year-old brother.

Present condition.—An excessively fat child, the fat being fairly evenly distributed, but appearing in folds about the neck, the axillæ, in the middle of the back and in the ilio-inguinal regions. The legs and arms are huge, the breasts as large as those of a girl sixteen years old and the abdomen very prominent.

Physical examination is entirely negative, excepting that the pulse is rather rapid, about 120. She is decidedly apathetic, a condition which appeared first four weeks ago and which seems to be progressing. Her mother states that she sleeps practically all the time. This apathy is particularly noticeable from the fact that she fell sound asleep sitting in a chair while being demonstrated to the class by Dr. Cushing. Her apathy was not so marked, however, as to in-

hibit the action of a very lively temper when aroused, on which occasion she scratched, bit and spat like an irritated feline. Her conversation appears to be limited to the words yes and no. The thyroid gland is not palpable.

Diagnosis.—At first glance myxedema suggested itself. Aside from the apathy, however, no signs appeared to substantiate this, as the hair was soft and abundant, the skin moist and quite ruddy and healthy in appearance. The eyelids were not puffy; the fat distribution did not correspond to that of myxedema, nor was the tongue large or protruded. Brain tumor was excluded by ophthalmoscopic examination, showing no choke disc. Arrested development, with obesity (Nanisme Avec Obésité de Bourneville), may cause such an appearance.

Slow growing hypernephromata may give rise to unusual growth in children, as in the case reported by Guthrie, and presenting very much the appearance of our patient. In his case the discrepancy between weight and appearance was attributed to lightness of the skeleton. No diagnosis was offered at the time, as there was no appearance of cretinism or myxedema. The heart was abnormal, however, and there was general congestion of the face and lips, with poor circulation.

In his report Guthrie says: "Possibly there is a connection between deficient thyroid development and lipomatosis." Three months later, however, the child developed signs of precocious puberty, and in six months there was a thick growth of hair on the pubes, the mammae became large and pendulous, and the general obesity had increased until the patient could hardly walk; there was no sign of menstruation. It was then agreed that the case was probably one of precocious sexual development, with hypernephroma. In the discussion, N. B. Harman said that in an examination of 7000 school children in one year he had seen only two with abnormal fatness corresponding to the case presented. There seemed to be nothing abnormal about these two except their enormous bulk.

A tentative diagnosis of lipomatosis from hypernephroma was made in our case. The patient did not report again to the clinic. On the morning of March 30, 1907, the hospital authorities were notified by Dr. Oster that a former patient had just died and that permission had been given for an autopsy. The body was transferred to the hospital morgue and proved to be that of the child under discussion. Dr. Oster, to whom we are indebted for his interest, had been called to see the child early the previous evening. She did not seem to be very ill, apparently suffering

from a slight cold. Suddenly at 5 the next morning death occurred. A report of the autopsy made by Dr. Russ, pathologist to the hospital, follows:

ANATOMICAL DIAGNOSIS.

Chronic induration of thyroid.

Glandular hyperplasia thyroid.

Mixed tumor of lumbar region—myo-fibroma.

Fatty degeneration of liver.

NORMA.

Outside case. Autopsy held at the laboratory.

Body of a well-nourished white female child (said to be four and one-half years old), 103 cm. long. Body cold. Rigor mortis not present. Postmortem lividity marked in dependent parts. Pupils equal. Abdomen very much distended. There is a short linear tear in the skin of each groin.

The whole trunk and all the limbs are, relatively to the height of the child, extremely large. The size is apparently due to a great overproduction of fat. The tissues are very flabby, and in some places (e. g., back of the neck) hang in folds. Nowhere is there any pitting after strong pressure.

The circumference of the abdomen at about the level of the umbilicus is 83 cm. The circumference of the right thigh is 43 cm., and that of the left 43.5 cm. at about the level of the beginning of Hunter's canal. Circumference of the neck is 29.3 cm.

On incision, the fat of the abdominal wall is remarkably abundant, estimated as about 5 cm. in thickness. It is of a very pale yellow color.

The peritoneal surfaces are smooth and shiny. The cavity contains about 100 cc. of thick, opaque grumous brown fluid of a very sour smell and most intensely acid reaction to litmus. It is almost wholly on the left side of the body and appears like stomach contents. Beneath the fluid the peritoneum shows several erosions. The intestines are much dilated, especially the colon, but are extremely pale. The loops are nowhere bound by adhesions.

The omentum is drawn down over the intestines and contains an abundance of fat, though nothing extreme compared to the subcutaneous deposition. The fat is of the same pale whitish color. The liver reaches 2 cm. below the tip of the ensiform in the mid-line. The spleen is in its normal location and is not enlarged. The diaphragm reaches the fourth rib on each side. On the left side, above the fundus of the stomach, is a round opening in the diaphragm, through which the fluid in the abdominal cavity has partly escaped into the thorax.

(Stomach described below.)

THORAX.

Organs are in their normal positions.

Pericardium.—Surfaces are smooth. Contains no excess fluid.

Heart.—Small; stopped in diastole. Epicardial fat is abundant.

Right auricle not dilated nor hypertrophied. Foramen ovale is closed. Right ventricle of normal size and thickness. No dilatation nor hypertrophy of the left side of the heart. The heart muscle on section is a pale red brown color, with slight, indistinct gray mottling. The valves—tricuspid, pulmonary, mitral and aortic—are all uniformly thin and delicate. The endocardium is everywhere smooth.

Pleurae.—There are a few tough fibrous adhesions over the surface of the lower lobe of the right lung. The left pleural cavity contains a certain amount of brown acid fluid (stomach contents), which has come through the perforation of the diaphragm as mentioned above.

Lungs.—Right and left lungs show entirely similar pictures, with the exception of the adhesions on the right side mentioned above. Surface of lung is dark—red and black and gray alternating. Lung tissue is soft and crepitant (section). Cut surface is dark red, moist and everywhere soft; no nodular areas felt. Bronchi are injected and contain an abundance of frothy serum.

ABDOMEN.

Stomach.—Not dilated nor out of position. The whole of the fundus region is occupied by a large rent through the entire wall. The stomach wall close to the opening is thinned and partially dissolved, so that it tears with the greatest ease, like wet tissue paper. Around the margin of the opening the color of the tissue is dark greenish. The rest of the stomach is pale; mucosa is smooth. No lumps or nodules to be made out. No other areas of ulceration. Pylorus normal.

Duodenum.—Mucosa bile stained. A watery yellow bile spurts from the papilla of Vater on pressing the gall bladder.

Jejunum.—Negative.

Ileum.—There is marked swelling of the Peyer's patches and solitary follicles all through the ileum, but without any congestion. The mucosa is pale throughout. There is no softening or erosion to be seen in the lymphoid follicles except in the colon, where the solitary follicles are extremely numerous and stand out prominently, each one having a round depression in its center like a minute erosion. Colon is markedly distended; filled with a bright yellow fluid. Nowhere congested.

Liver.— $21 \times 14 \times 5\frac{1}{2}$ cm.; weighs 740 grams. The surface is everywhere smooth; anterior margin sharp; color remarkably pale brown (section). Consistency is about normal. Cut surface pale gray brown. Lobules stand out with great distinctness, with red centers and grayish peripheries.

Spleen.—Measurements not noted. Spleen small. Surface smooth; no adhesions. Color is a dirty brownish purple. Spleen is lying directly in the acid fluid which came from the stomach. On section, capsule is not thickened. Pulp dark red and soft. Malpighian bodies are large and gray.

Right Kidney.— $8 \times 2.8 \times 2.3$ cm.; weighs 60 grams. Surface dark and smooth. Perinephritic fat is not unusually abundant. Capsule is thin and strips easily, leaving a smooth cortical surface. Cortex of normal relative width; dark grayish brown, with red lines. Pyramids congested, especially at their peripheries. Pelvis normal.

Left Kidney.— $7.9 \times 3 \times 2.9$. Similar to the right.

Tumor.—Lying beside the left kidney, in the midst of the fatty tissue and with the renal artery passing through the midst and the renal vein running directly over it, is a firm, nodular mass just about the same size as the kidney. On stripping away the fat around it, it is found to be a well encapsulated mass $8 \times 4 \times 4$ cm. in size, attached to the connective tissue about the pelvis of the kidney. The mass is divided into four or five unequally sized lobes or lobules, quite well marked off from each other. It is very hard and of a uniform gray color. On section, is firm, smooth and glistening and of a fairly uniform gray color. On close inspection, numerous white opaque fine lines may be seen running all through the tissues, in the meshes of which are areas of a more glistening, translucent nature. When the surface is scraped with a knife, these areas show very fine roughening, as if cells had been scraped off.

Bladder.—Not distended. Not removed.

Genitalia.—Not removed. There are no adhesions around tubes or ovaries. Ovaries rather large, of equal size; gray smooth surfaces. Uterus small, undeveloped.

Thyroid.—Not enlarged. Lobes of equal size; red brown.

Brain and Skull.—Calvarium is thin and soft. Dura is slightly adherent to the inner surface on the left side. There is a moderate, uniform dilatation of the pial blood vessels over both hemispheres. Cortical convolution appears normal. Nothing abnormal to be found by dissecting open the sylvian fissure on either side or in the region of the fourth ventricle. Meninges

and nerves at the base appear normal, except for above mentioned; slight congestion. No exudate.

The lateral ventricles are not distended. Contain only a small amount of clear fluid. Choroid plexuses not engorged. Corpora striata seem normal.

There was a fairly large amount of very slightly turbid fluid beneath the tentorium.

MICROSCOPIC.

Heart.—Negative.

Lungs.—Congested; edematous. In parts there is emphysema; in others, slight atelectasis.

Liver.—Marked fatty degeneration, affecting the cells in all parts of the lobules, but particularly near the outer zones. Degenerated, fatty liver cells may be seen inside some of the larger branches of the hepatic veins.

Spleen.—Malpighian bodies large; otherwise negative.

Kidneys.—Somewhat congested, especially in the pyramids. There is a good deal of cloudy swelling of the cortical epithelium.

Thyroid.—Marked congestion. There is also a marked increase in the fibrous tissue, which forms broad, dense bands between the acini. The epithelial cells are much altered, showing a decided increase in height to a cylindrical or columnar type. The outline of the acini is no longer smooth and regular, the epithelium being thrown into numerous elevations and folds. The colloid material is markedly reduced in amount. There is also a good deal of epithelial desquamation into the alveoli.

Thymus.—Shows well marked regressive changes. The adenoid tissue is largely replaced by broad bands of fibrous tissue and fat. Where it still remains, a good many mononuclear cells are found, though there is little phagocytosis to be seen.

Hypophysis.—Marked congestion. Cells appear normal.

Tumor.—The great bulk of the tumor is composed of a dense network of fibres, often gathered into fairly definite bundles, which in themselves form a coarser network. The fibres take a bright eosin stain and in places appear almost hyaline. The nuclei lying among them are long and spindle shaped, smooth in outline, and take the stain well. In places the fibre bundles are grouped very like smooth muscle, giving an appearance much similar to a section of uterine wall. Stained with acid fuchsin and Mallory's aniline blue—orange G. stain—many bundles of red staining fibres may be seen among the blue ones. Some of the large bundles are almost entirely red, with only a few blue strands. With

Van Giessen's stain, many fibres are seen taking the yellow picric acid color.

There are, besides the fibres and corresponding cell nuclei, two other cell types found in the tumor:

(1) Many very large cells, oval or pyramidal shape, containing usually a single (often two or three or as many as four) nuclei, pale staining and with a very definite nucleolus. Their cytoplasm is abundant and stains brightly with the eosin. Often a cell possesses one or more large processes. They are very definitely ganglion cells, and belong in all probability to ganglia of the renal, supra-renal or coeliac sympathetic plexuses, directly over which the tumor lay. The cells are often arranged in groups.

(2) Groups of small round cells of a definite lymphoid type, with dark nucleus and small amount of protoplasm, found in many areas throughout the tumor. The groups are usually around a blood vessel, and at the edges the cells are pushing out between the fibres in a very irregular fashion. There is nothing about the cells themselves to suggest malignancy. Mallory's stain shows that the cells of these groups usually lie in a fine fibrillar reticulum.

In none of the specimens is anything found to suggest adrenal tissue.

Examination of Spinal Fluid.—Negative.

Cause of Death.—Obscure.

CONCLUSION.

The lipomatosis appeared to be the result of atrophy of the thyroid gland. The condition, therefore, while not clinically a myxedema, may be designated by the term cretinoid, as suggested by D. Marine, who has devoted particular attention to the diseases of the thyroid gland in the lower lake region, especially with reference to their occurrence in dogs. I am indebted to Dr. Marine and Dr. Perkins for the excellent photographs which I show.

TUBERCULAR LARYNGITIS.

BY A. B. THRASHER, M. A., M. D.,
Cincinnati.

[Read before the Ohio State Medical Society, Cedar Point, August, 1907.]

In bringing this subject before the Ohio State Medical Society I appreciate that its various phases have been so frequently gone over as to have grown stale. You will more than readily excuse me for not entering more fully into some points of etiology and diagnosis.

I only dwell on what has not been fully

brought before you and on points that my experience has found to be of interest.

Tubercular laryngitis is an infectious disease caused by the presence and growth of the tubercle bacillus in the tissues of the larynx. It is not enough that the bacillus be present but it must be in active growth to produce the inflammatory condition known as tubercular laryngitis.

There has been a controversy over the question as to whether this may ever be a primary condition.

Numerous cases have been seen where no other lesion was apparent during life or post-mortem. But the possibility that an undiscovered point of infection exists in some other region has caused the doubt as to whether primary tubercular affection of the larynx ever exists.

Dr. Walter F. Chappel, in a paper read before the American Laryngological Association, 1905, discusses in a thorough manner the relations of laryngeal to pulmonary tuberculosis. He says "while convinced that in the majority of cases the larynx is infected late in the course of pulmonary disease by auto-inoculation, we are equally certain that in a goodly minority of cases the laryngeal localization is wholly independent of the pulmonary implication, and has its own causation, pathology, diagnosis, prognosis, and treatment."

Even when tubercular laryngitis occurs in a case infected with pulmonary tuberculosis, it is not necessarily caused by the lung affection.

Primary tuberculosis may occur in a joint, in the kidney, the ovary, the testicle, the meninges, the lungs, and why not in the larynx? Many cases have been reported where no other lesion was discovered either before or after death. There is no reason why there may not be a primary infection of the larynx and there are many reasons why it is sometimes so infected.

The resisting power of the respiratory tract seems to decrease in proportion to the remoteness from the source of infection.

The nose, while first exposed, is least liable to infection, the pharynx next, the larynx next, and the lungs, while most remote, are most easily infected.

The invasion of the larynx may be (A) from without: by bacilli in inhaled dust or in the secretions, penetrating the tissues through an abrasion in the surface or, as demonstrated by Jonathan Wright, (Journal American Laryngological Association, 1896), through epithelial cells where in a section from a tubercular larynx he noted 'a veritable stream of tubercle

bacilli pouring into and through the thickened squamous epithelial covering of the laryngeal mucous membrane." Or (B) from within, by means of blood or lymph vessels.

The tonsillar ring is a favorite site for tubercle bacilli to rest in a latent condition (Strassman, Virchow's Archives XCVI). It has been suggested that these bacteria may become active as a result of surgical interference with this tissue and hence invade the larynx.

Holbrook Curtis (Laryngoscope 1901) considers lymph tissue the favorite culture ground of tubercle bacilli of the larynx since those parts richest in lymph tissue as the inter-arytenoid space, the posterior portion of the vocal cords and the epiglottis are the favorite seats of invasion.

While an actual solution of continuity is not necessary for the invasion of tubercle bacilli yet there is probably a weakened condition of the mucosa as a precedent or causal factor and not as a resultant of the infection. This is an important fact to remember as it may explain some cases of apparent heredity. Of course we know that tuberculosis is not hereditary and that all such apparent cases are caused by contagion, environment or tissue weakness. After tubercle bacilli have invaded and lodged in the tissue they may remain dormant for an indefinite time, always, however, liable to be awakened into activity by a lowering of tissue vitality. This lowering of vitality may be caused by the active growth of tubercle bacilli in other organs, notably, the lungs and it is as much more marked when accompanied by other pathogenic organisms.

The resulting power of the larynx may be impaired by a single laryngitis, by syphilis, by mal-nutrition or by breathing impure air. The larynx may have been weakened from the above or like causes when tubercle bacilli would lodge, penetrate, and either proliferate or remain dormant until aroused into activity. This growth of the tubercle bacilli would be more easily excited while living in a foul air.

I cannot think that the temperature of the air, which plays such an important part in the mind of the public, has much influence on the vitality of the tissue. Neither do I think that climate or altitude is of such overwhelming importance as was taught a score of years ago.

Before the invention of the laryngoscope tuberculosis, carcinoma, lupus, and syphilis were indiscriminately classed as throat consumption. Now the laryngoscope usually settles the diagnosis, although the microscope is always re-

quired to determine the number and kind of pathogenic bacteria present. The differential diagnosis is as a rule not difficult in the advanced stage of the disease and so common is the picture then that I will not go into details. But even then, when complicated with syphilis it is not always recognized and the aid of potash and mercury is often required.

Syphilis of the larynx is generally accompanied by stigmata in other regions. It attacks by preference the buccal surface of the epiglottis and is not so painful as is the same lesion of tubercular origin. Epithelioma of the larynx gives rise to more constant pain, greater deformity, more intense inflammatory symptoms and, of course, age is at times a valuable diagnostic point. Papillomata frequently appear in a tubercular larynx but are not likely to mask the more serious underlying condition. The basement mucosa may not be much changed in simple papilloma, whereas profound and deep changes are macroscopically noted in tuberculosis.

Chronic laryngitis in a tubercular subject may at first sight be mistaken for tubercular laryngitis. The inflammation is, however, apt to be more diffuse, and is a darker red. In scleroderma the thickening is more confined to the processus vocalis, is pearly white and is not accompanied by constitutional symptoms. The very beginning of the trouble is hardest to recognize and its recognition is fraught with most benefit to the patient. It is at times ushered in by changes in the voice. A slight swelling of the arytenoid may cause this, or, a pressure on the nerve may impair the mobility of the cord. This may or may not be accompanied by a cough. There may be a slight hyperemia of the mucosa which will in the more advanced stage give place to anemia and the characteristic tumefaction. The inter-arytenoid space may be slightly thickened or small corrugations of the mucous membrane, or even papillomata appear there. This is always a suspicious indication and its presence should at once cause a rigorous examination. The under surface of the epiglottis is at times first attacked, small painful nodules appearing near the margin. Then the first subjective symptom is a slight pain in the beginning of the deglutition and this has been the frequent cause of seeking medical advice in time to save the patient's life.

Loss of voice during pulmonary tuberculosis does not always mean an invasion of the larynx,

but it always demands a laryngoscopic examination.

I have had many cases referred to me with the hasty diagnosis of tubercular laryngitis where no such condition was present. There might be a simple laryngitis, a pressure by an enlarged gland on the recurrent nerve, or only a general weakness, to account for the vocal disability.

Many tubercular patients are harassed by local applications to a healthy larynx, which could have been avoided by the easily acquired use of the laryngoscope.

It was not until Garcia's invention of the laryngoscope that laryngeal tuberculosis was clearly differentiated and it was not until the discovery of the anesthetic property of cocaine in 1884 that much progress was made in local treatment. To Schmidt, of Frankfurt, Herynx, of Warsaw, and Krause, of Berlin, we are indebted for the first rational treatment of tubercular laryngitis.

Treatment is naturally divided into constitutional and local. The constitutional treatment does not differ from that used in pulmonary tuberculosis. Fresh air, good food and rest are the requisites. Cod liver oil and creosote have, in my opinion, done more harm than good and the same can be said of all other internal medication. I do not mean that these agents may not be of value in selected cases, but they must not be given without discrimination. Many patients have been killed by too much feeding. The digestive system has been overtaxed by stuffing the stomach with eggs, milk, meat, oil, all excellent foods in their way. Too much and too frequent feeding may work irreparable injury. The patient is nourished not by the amount of food he takes into his stomach, but by the amount he digests and assimilates. Where deglutition is painful, as is often the case in the laryngeal affection, care in feeding must be used to not irritate the throat more than necessary. Opiates to relieve pain are only necessary in the most advanced stages when the physician only hopes for euthanasia.

The local treatment is both medical and surgical, and is applied either for relief or for cure. The number of medicines thus used is proof that none have been universally efficient.

The tubercle bacilli are not difficult to destroy and many agents will do the work when properly applied. Formalin, nitrate of silver, trichloroacetic acid, carbolic acid and lactic acid about exhaust the remedies which I have found useful in destroying the bacilli. Carbolic acid in 25% solution gives greatest relief from pain.

Lactic acid thoroughly rubbed into the localized lesion has had greatest laudation.

Intra-tracheal injections of menthol, guaiacol or creosote in a bland oil have been much praised but, strange to say, have not been of so much benefit in the laryngeal as in the pulmonary form of the disease.

However, there are cases that feel much better after these injections and we can not say that they are entirely without value. The same may be said of a coarse oil spray containing menthol guaiacol, etc., thrown into the larynx during inhalation. This is generally borne better than the solid stream and I think it answers quite as well. Cocaine and adrenalin are useful in some cases either in solution in a spray or as a dry powder by insufflation. Iodoform, which was formerly so much used, has a decided anesthetic effect and seems to relieve some cases, especially in the ulcerative stage. Orthoform has given good results in other hands, but I have perhaps not sufficiently used it to recommend it.

Where there are localized lesions they can be much more vigorously treated than when the whole larynx is involved.

Tubercular laryngitis is certainly difficult to handle; but some cases get well and I think local treatment affords great relief and is of some curative benefit.

Sendziak (Journal of Laryngology, 1901), after enumerating a large number of medicines for topical application, says: "after having tried almost all the above remedies I must say that the greater number of them might be removed without being missed."

Rest in the treatment of laryngeal phthisis is of double value. It is of great utility locally as well as constitutionally. W. Peyere Porcher has contributed an excellent paper on "rest in the treatment of tuberculosis," he says, "rest either partial or complete, should be paramount in all cases," (Journal American Laryngological Association. 1905). When there is pyrexia rest is the most rapid and safe way of reducing the temperature. Of course increased temperature means increased inflammation from growth of tubercle bacilli or other pathogenic organisms.

But rest of the larynx is of especial value. Dysphonia or aphonia is nature's method of compelling rest from phonation, and early attention to this indication is of great value. Prolonged cessation of phonation should be enforced, or at least until the voice is normally clear.

Surgical treatment may be either extra laryngeal or intra laryngeal. Under the first head may be total laryngectomy, which I believe is no longer advocated; and tracheotomy or laryngofissure. The opening of the air tract below the point of disease has been advocated to prolong life by relieving dyspnea and to give physiological rest to the larynx.

There are, possibly, cases where it might be done for relief of dyspnea, although I have never seen a case where an intra laryngeal operation would not answer better. When done as a curative act to give rest to the larynx, I cannot believe that the operation is ever justifiable.

It certainly gives rest, but the diversion of the air through the lower channel gives rise to more trouble than the rest for the larynx does good.

When, however, we come to consider intra-laryngeal operations a very different story can be told. These operations can be classified under these heads, viz.: 1. Submucous injections, as advocated by Heryng, of Warsaw, and Lake, of London. 2. Scarification, as for edema and tumefaction. 3. Cutting way of the tubercular tissue by cutting forceps, punch or by sharp curette. 4. Galvano-cautery.

Lake, of London, said, before the section of laryngology and otology, British Medical Association, that in his experience more than 15% require cutting operation. Operations are either for cure or for relief. For cure where there is not too much constitutional involvement and when the infected area is circumscribed. High temperature or rapidly extending pulmonary lesions are contra indications.

Even in the hopeless cases operations may afford relief from dysphagia and dyspnea. When the edge of the epiglottis is alone infected the quicker the affected part is cut out the better. The same is true of a localized lesion on the cord or in the inter arytenoid space.

Gleitsmann is a worthy champion of curettment. In a paper read at the Rochester meeting of the American Laryngological Association, he says: "Curettment is a rational proceeding and based on sound principles of surgery. Its adoption is entitled to the same consideration as the removal of a tuberculous joint by the surgeon," and again, "curettment in properly selected cases is more affective, quicker in action, and better in its results than other methods of treatment."

Circumscribed tubercular nodules, infiltrations, and excrescences are best treated by curette or cutting forceps. The use of lactic acid

in the open wound may destroy remaining bacteria and prevent a fresh invasion. I quite agree with Gleitsmann in saying that cases for surgical treatment must be properly selected and the operator must have considerable tactile dexterity.

There is no doubt in my mind of the benefit of surgical treatment in suitable cases, yet I must confess that such cases are not many. Jonathan Wright, one of the most trustworthy observers ever sent out by Ohio, says that the various methods of treatment do not hasten the radical cure except in an insignificant number of cases. The great discrepancy in opinions as to the value of treatment both medical and surgical is largely owing to the subjective differences of temperament in the physician. The optimist will do good work in the larynx and his patients being cheerful and hopeful will improve. The pessimist may do equally good work in the throat but his patients will catch his gloom and despair and will decline.

All cases should not be treated alike, because no two cases are ever alike. The physician who has a fad and treats every case of laryngeal tuberculosis by curettement, by intratracheal injections, by lactic acid, or by any other favorite method, will not have the best results in a large number of cases. He may gather statistics, or add to the number of treatment cases, but he also adds to the total amount of pain and number of deaths.

The laryngoscope should be intelligently used in every suspected case and the earliest symptoms recognized.

There are cases in which it is criminal to hesitate and wait for a spread of the infection. Then I say of cases of tubercular laryngitis fresh air, good food, rest, local treatment suited to the local condition; I must add a cheerful, hopeful disposition on the part of the doctor, and nearly all cases are benefited and may recover.

DISCUSSION.

Thomas Hubbard, Toledo: Primary laryngeal tuberculosis may be clinically a fact but pathologically it is improbable. In other words, the primary lesion which has caused the secondary lesion in the larynx may have passed its active stage and we have to deal merely with the local condition. This gives encouragement and we should not classify all cases of laryngeal tuberculosis as hopeless. These patients are deserving of our best efforts, and we are indebted to Dr. Thrasher for reviving the subject, because there is a lack of enthusiasm in the treatment of this class of sufferers. I plead guilty myself.

The subjective symptoms in an individual who is a candidate for laryngeal tuberculosis should be given careful attention, and any special mani-

festation such as chronic laryngitis may favor laryngeal invasion and therefore should receive attention.

I have been surprised to see the remarkable recoveries from the open air and general hygienic treatment in cases having tuberculous laryngitis without any local treatment to mention. And that impresses me with the fact that the essential feature of treatment of tuberculous laryngitis is that refinement of hygienic environment known as the fresh air method. There is no question but that the effect of fresh air, and especially cold air, is beneficial to the larynx, and in addition it is a general tonic, toning up vitality and resistance.

John North, Toledo: I think a valuable paper like this is entitled to more discussion. It is a very important subject and should interest every one.

Now, as to whether primary laryngeal tuberculosis ever takes place or not I am not able to say. I think it is possible, yet I have never yet found a case of laryngeal tuberculosis but what I could detect evidence of tuberculosis in some other organ. One of the very important things in every case of lung trouble that I examine is that I look into the throat and if I see a pale fauces, particularly the uvula and contracted, and with the mirror see the epiglottis and find that pale, you will find in time laryngeal trouble in these cases. You do not have laryngeal tuberculosis with an inflamed throat until after the ulceration breaks down. After the ulceration breaks down and the tubercle has emptied out the germs, then the best thing I have found to relieve the pain is orthoform. It is no use unless you have a denuded epithelium, but on a denuded surface you get an anesthetic effect. I give my patients something similar to what Dr. Hubbard mentions, guaiacol and menthol and orthoform in petroleum oil and the patient with a probang can make the application and get relief when they cannot swallow any other way.

I think rest is of importance, not only as we give it in any other form of injury or soreness, but in all tubercular cases we want rest. We want to avoid fatigue. The ptomaines of fatigue do more to hurt these cases than any other. I do not think any man ever died of tubercle bacilli alone until a secondary infection with other germs took place in connection with it. But the pure germ itself does not destroy life; it is only the mixed infection and not the primary tuberculosis.

J. M. Ingersoll, Cleveland: I agree with Dr. Thrasher in every he has said. The paper is a valuable one. His brief resume of the essential things, nourishment, fresh air and proper treatment in each individual case are very valuable. Dr. Hubbard spoke of patients giving themselves intra-tracheal injections. They can do it. I have sometimes instructed them to use a curved medicine dropper, and with a patient who has fairly good control of the throat, the medicine dropper is long enough and gives about the right quantity—a drachm, or a drachm and a half. Patients soon learn to drop the medicine into the larynx and trachea and get very material relief from its use.

As to the specific local treatments, I say that I have been too much of a coward to undertake the surgical methods, and really have very little experience with them. But there are many methods by which we can alleviate the suffering. A local treatment has been advocated by Thomas J. Gallaher, of Denver, which seems to me the best. Formaldehyde, three to five per cent., scrubbed into the lesion, after a few treatments gives relief, and the local symptoms are ameliorated. He, of course, sees many cases having very advanced laryngeal lesions, and many are apparently cured. He has used the method eight years and recommends it enthusiastically. He knows nothing that gives as good results as the formaldehyde treatment supplemented by the routine hygienic method.

Intratracheal injections are also very beneficial, not only relieving the immediate irritation and exquisite sensitiveness in the larynx, but also it serves to clear the bronchial tubes from accumulated mucopurulent matter which must pass through the larynx, thus keeping up the corrosion. These intratracheal injection to be of benefit in advanced cases should be repeated at least twice a day. By the use of a canula with not more than three-quarters of an inch curve, not attempting to pass it below the point of the epiglottis, the patient can with a few lessons, unless they have an exceptionally irritable throat, be taught to inject several drachms of a two to four per cent. guaiacol or menthol solution in pure petroleum oil. I think that is better than any other vehicle. It does not become rancid and you can keep the syringe clean, and it serves as a vehicle to carry these volatile remedies into the bronchi. They can be taught to do this easily using a hand mirror. Some of the solution gets into the esophagus, but the patient who has once experienced relief by this method will perfect it himself, and it can be repeated as often as is beneficial.

Orthoform is very beneficial, a formula for the emulsion of which was given by Freudenthal—orthoform, one drachm to one ounce, and a small percentage of menthol in an egg emulsion. The orthoform egg emulsion is very easily applied by the patient by means of a swab. Many have difficulty in swallowing and the nutrition is decidedly interfered with, and if you can give them something that can be used preceding the meal time you are doing away with that cause of impaired nutrition.

In closing I repeat that we are under obligations to the laryngologist who does his duty in this line of work, because it is rather discouraging and not without a certain hazard to the one who undertakes it.

O. B. Monosmith, Lorain: I should like to ask Dr. Thrasher if he has had any experience with the Bier treatment by passive congestion of the lungs?

A. B. Thrasher, Cincinnati, closing: I very much thank the gentlemen for the kind reception of the paper. I have very few words to say in conclusion.

In reference to the value of these methods of topical applications, or rather of the material used, take for example, formaldehyde as suggested by Dr. Hubbard, in which the patients

express themselves as relieved by the treatment. Now they will express themselves as being relieved by any form of treatment. They are the most grateful patients in the world, these patients with tuberculous laryngitis. Lactic acid and carbolic acid have done the same thing, and possibly formalin is better and the effect may last longer. However, I doubt very much the value of any of these applications to a diffuse laryngitis, but to a circumscribed laryngitis where the bacilli are limited to a definite area, then I think great advantage can be obtained; and these are the only cases in which any kind of operative procedures are in my mind justifiable.

In reference to the self-administration of tracheal injections I have never recommended them. In fact I do not use them any more for tubercular laryngitis. I think you will find, and Dr. Hubbard will find, where the injections have been of value it has been rather in pulmonary tuberculosis. Now the difficulty is very great in diffuse or limited laryngitis, and these men can tolerate no difficult manipulation inside the larynx. Whereas, one of the commonest things is the ease of manipulation of the larynx in a case of pulmonary tuberculosis. I remember one case distinctly in an advanced stage in which there was complete anesthesia of the larynx and used it for demonstration. I have seen this in several cases. But the picture changes instantly when acute inflammation of the larynx is present. Then you have excessive pain and difficulty in manipulation, and that is the reason no advancement was made in the treatment of these cases until the discovery of cocaine. Of course, carbolic acid is efficacious, but it is difficult to apply. With cocaine the difficulty is not so great. With cocaine and adrenalin we can get the larynx so completely anesthetized that you can manipulate without pain; but to do that for intratracheal injections is just a little too much.

Now I have adopted another expedient, and that is the inhalation of a coarse oil spray containing exactly the same ingredients as those mentioned. By means of a DeVilbiss or any coarse spray atomizer it will reach the trachea and bronchial tubes and will reach them without producing any reflexes whatever. You can allow the patient to use this as often as he likes and without any trouble whatsoever.

It strikes me, however, that in many of these cases we neglect the thing that Dr. Hubbard has insisted upon, and which I would now insist upon more than ever before, and that is the placing of a case of tubercular laryngitis in as good hygienic surroundings as a case of pulmonary tuberculosis. If pulmonary tuberculosis is present you will do no harm and will do good. I mean by that, keep them out of doors. I do not mean send them to the mountains or to Colorado or anywhere else, but at home. The majority cannot leave home. Arrange a sleeping apartment out of doors. And if you get these cases in the beginning when you can find little or no involvement of the lungs the majority will recover in your hands. The difficulty is we do not get them then. It is simply a bad cold. The terms bad cold and catarrh have done

more harm to tuberculosis cases than any other. People think they are taking cold when they are getting tuberculosis, by breathing impure air and inhaling germs. Consequently if we place them first in the fresh air and give good food, the local treatment would certainly take third or fourth place in the treatment.

I have had no experience with the so-called Bier treatment.

A REVIEW OF THE OCULIST'S RECORDS FOR TEN YEARS AT THE OHIO STATE SCHOOL FOR THE BLIND.

BY JOHN E. BROWN, M. D.,
Columbus.

[Read before the Eye, Ear, Nose and Throat Section of the Ohio State Medical Association, Cedar Point, 1907.]

Up to July, 1896, the records of the Ohio Institution for the Blind contained no data on eye conditions of pupils other than that furnished on the application blanks sent in previous to admission. This data was often meagre, conveying little or no information or being actually misleading as to the real cause of blindness, such replies as "Don't know," "Born blind," "Always nearsighted" and "Cataract" being frequently the total of information found on the application. In 1896 the position of examining and visiting oculist was created, and the writer has since endeavored to maintain records showing actual eye conditions and causes of blindness, and, through contact with newly admitted pupils, to follow up and see that proper treatment was received in all cases needing same and where hope for improved vision could be entertained.

As the institution is maintained for educational purposes, and only in a limited way for trade instruction, and only incidentally for hospital purposes, its pupils are drawn very largely from children of age between six and twenty years—that is, of common school age—and whose eye lesions are not usually in the stage of activity demanding treatment. A limited number of adults whose blindness has been acquired since the school period of life apply for admission to receive instruction in a trade, such instruction at present being practically limited to broom-making.

It would naturally be supposed that all those for whom admission is sought had been under the care of or at least had their condition passed upon by competent oculists, and that conditions amenable to treatment or that could be relieved or improved by operation would have received the attention indicated. In a surprisingly large

number this has not been the case. Inasmuch as our information is gained from a question blank filled out and sent in by the parents or guardian, and after admission, from the pupil, often of tender age, who may not be possessed of accurate information, it is sometimes difficult to ascertain just what care and attention may have been given an individual case. But our data has been accurate enough to prove that there is a surprising lack of care for these unfortunates; that conditions of congenital blindness, complete or partial, have been taken for granted, and in cases of acquired eye disease affecting vision there has been lamentable neglect.

The law specifies that the school is for the benefit of the blind, or purblind, or children of school age who on account of visual defects are unable to obtain an education in the public schools. This accounts for the gradations to be found in degree of visual acuity, the law naturally being construed to give the pupil the benefit of doubt where doubt exists. Now and then it is imposed upon by those who seek special instruction, generally in music, at the expense of the state. But, on the other hand, there are many parents who through false interest or misdirected sympathy deprive their unfortunate offspring of its advantages without providing at home any substitute in the way of mental training or discipline. The welfare of these unfortunates demands not only the training and development from pursuit of the so-called common school branches, but discipline as well. As yet the institution can scarcely be called industrial. It is educational. In the opinion of your essayist the great need now for the welfare of the juvenile blind is for the development of the industrial element in their training by the state. The later in life such instruction is begun the less efficient it is. The institution should, during the period of the pupil's attendance, have all the powers of parent or guardian, and at a very early period instruction should be begun in the manual arts and trades that have been put within the reach of the blind. For this plan to reach efficiency the institution should be entirely free from political domination, an end easily possible if the immense responsibility of the state in its care for the blind were properly appreciated.

While there are exceptions sufficiently numerous to make the statement not one sweeping in character, the study of the admissions indicates that the majority come from homes representing social grades below the middle. While it is probably true that blindness is more frequent in these lower grades, the fact that in the higher grades home and private instruction is more

available will account for a reduced percentage in the state school.

Naturally from their large population, it would be expected that the admissions to the institution would come largely from Cuyahoga, Hamilton, Franklin and other counties of large cities, but even aside from the matter of population we believe that there is a greater proportion of blindness among children in the cities. I think this is particularly true in regard to the case of ophthalmia neonatorum; on the other hand, I believe inquiry would reveal the fact that cases of sympathetic ophthalmia have come more largely from smaller cities or rural districts. The explanation of this lies in the fact that in cases of eye injury the services of an oculist are not so readily secured, and consultation is not had until apparently the case has become urgent.

The institution building provides separate wings for boys and girls. On the boys' side a recent addition to the building furnished opportunity for adding rooms for hospital purposes, so that we are in possession of a surgical ward of five beds, as well as a medical ward of equal number, each opening upon a large room, used in part for the dispensary treatment of cases not

confined to the hospital. Similar facilities—not so well arranged, however, being in the old building—are to be found on the girls' side. We have been enabled, however, to absolutely exclude our surgical cases from all contact with other parts of the institution, and, despite the fact that many of our operations have been performed in cases where there existed old conjunctival lesions or discharge, in whom conditions might seem more favorable for infection than in the ordinary case, yet we have not had a single case of suppuration in operations on the eyeball.

In the table showing causes of blindness we have endeavored to make the simplest classification possible. One cannot always discover what gave rise to corneal ulceration, nor could we secure data which would tell us whether the eye lesions were originally local or secondary to some general infectious disease. In other cases the cause of blindness could be properly listed under more than one heading, as, for instance, in some cases where one eye has been lost through injury, and later independent disease has destroyed the vision in the remaining eye. The table is, however, self-explanatory.

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	10 yrs. total.	Per- centage.
New pupils admitted....	51	52	57	54	50	63	52	52	38	56	521	
Males	30	29	26	34	38	33	37	26	21	35	309	
Females	21	23	31	20	18	30	15	16	17	21	212	
Blindness, congenital ...	8	6	8	10	8	10	6	4	5	15	80	15%+
Congenital cataract	7	3	4	7	4	7	5	3	2	9	51	9%
Congenital optic atrophy..	..	..	1	..	2	1	..	..	2	3	9	
Microphthalmus .....	..	..	1	1	..	1	..	1	1	1	6	
Ectopia lentis .....	..	..	..	..	..	1	..	..	..	2	3	
Albinism	1	1	1	1	1	..	1	..	..	..	6	
Congenital anomalies ..	..	2	..	1	1	1	1	..	..	..	6	
Congenital ophthalmople-												
gia externa totalis....	..	..	1	..	..	..	..	..	..	..	1	
Refractive	2	8	13	8	5	7	6	..	..	1	50	9.9%
Ophthalmia neonatorum..	10	9	7	8	10	9	9	9	11	11	93	17.6%
Purulent ophthalmia	3	6	2	..	5	4	1	2	..	2	25	4.8%
Trachoma	7	6	5	4	3	3	2	2	3	..	35	6.7%
Ulcer of cornea.....	1	2	..	7	2	2	1	1	3	2	21	
Phlyctenular ophthalmia..	2	3	5	3	1	3	3	..	..	1	21	
Interstitial keratitis	3	1	2	2	3	1	..	4	1	1	18	
Plastic uveitis (general)..	..	2	..	1	1	..	..	3	..	..	7	
Retino-choroiditis dis-												
seminata	2	2	3	..	..	4	..	2	..	..	13	
Degenerative uveitis	1	1	..	1	..	2	2	2	2	2	13	
Glaucoma .....	..	..	..	..	..	1	1	..	..	1	3	
Injury	2	..	4	2	5	9	5	2	5	4	38	7.2%
Sympathetic ophthalmia..	3	2	3	2	3	1	4	5	2	3	28	5.7%
Optic atrophy	4	6	7	6	4	10	9	6	5	11	67	12.9%
Pemphigus conjunctivæ...	1	..	1	..	..	..	..	..	..	..	2	
Conical cornea .....	..	1	..	..	1	..	..	..	..	1	3	
Retinitis pigmentosa.....	..	2	1	..	..	..	1	..	1	..	5	
Toxic amblyopia .....	..	1	..	..	..	..	..	..	..	..	1	
Pterygium .....	..	..	1	..	..	..	..	..	..	..	1	
Detachment of retina....	..	..	1	..	..	..	1	..	..	..	2	

Ophthalmia neonatorum is the most prolific cause of blindness in the class of preventable, the lowest percentage from this cause in any one year being 12.2, while the highest is 28+, an average for ten years of 17.6. If we should include in our records 105 cases of old pupils examined, but admitted before 1896, the percentage would be slightly greater, as in these we found twenty-one cases—20 per cent.—due to this disease.

It furnishes the steady diet in our institution records, which comprise naturally a class of cases representing the more destructive lesions of the disease, and, of course, only a small fraction of the total number occurring in the state—children with vision more or less damaged by slight corneal opacity—or anterior polar cataract due to the disease, yet whose whole career is influenced by the defect in vision. It seems to me the subject is of enough importance that in every case of obstetrics, when not under the daily notice of the physician, a printed slip should be left in the home or at the bedside of the parturient, calling attention to the destructive nature of inflammation of the eyes of the newborn occurring any time within ten days or two weeks after birth, and the necessity for at once calling the attention of the physician to the same. Not only this, but in this midst we must emphasize the fact that this inflammation is nearly always due to a gonococcus infection, and the attending physician should not place reliance on use of a boracic acid solution alone, but remember that a more active agent, preferably a silver salt, is called for to combat the disease and to reduce the danger of corneal implication. It is not in the scope of this paper to take up the treatment of ophthalmia neonatorum, but it would be a failure to do our duty if we neglected to emphasize to the fullest the importance of anticipatory and early treatment of these cases of ophthalmia which appear at times where the physician least expects them.

How best to disseminate information that will diminish the percentage of preventable blindness is a question that has long been under consideration. The work of the committee on ophthalmia neonatorum of the American Medical Association is no doubt to bear good fruit. For the last report of the state institution, at the suggestion of the superintendent, I prepared a page for insertion, slightly modified from a form gotten up by Priestley Smith, to read as follows:

"PREVENTION OF BLINDNESS

From Inflammation of the Eyes of the New-Born—Advice to Mothers and Nurses.

"It cannot be too widely made known that many persons are blinded every year by diseases that are preventable and curable. The most destructive of these diseases is the ophthalmia of new-born infants. Nearly one-fourth of the present pupils of this Institution owe their blindness to this cause, and the same high proportion has been found to obtain in other schools for the blind. It is fair to say that in nearly all of these cases the eye-sight might have been saved by proper treatment at the commencement of the disease; the disease usually arises through ignorance of the danger and consequent delay in obtaining medical treatment. Delay is dangerous, and in the case of a new-born babe the parents or nurse must not wait until the symptoms of inflammation have become severe, but must give the case most careful attention whenever any signs of inflammation present themselves.

"This form of ophthalmia is due to the infection of the baby's eyes with irritating material during or very shortly after birth. About the third day after birth—in some cases a little earlier, in others a few days later—the baby's eyelids become swollen, and a yellowish secretion is found forming and discharging from the eyes. This is the sign of danger. Skilled medical advice should be obtained without delay. In the meantime the baby's eyes should be cleansed in the following way:

"Place the baby on its back with a cloth under its head; separate the eyelids gently with the thumb and finger, and with a bit of fresh absorbent cotton or a soft, clean bit of cloth, drip warm water freely into the eyes, moving the lids gently over the eyes, so as to wash away as thoroughly as possible every bit of the secretion that has formed. This should be repeated hourly, or in cases of much secretion, half hourly, until the services of a competent physician have been secured.

"The laws of the State of Ohio recognize the importance of this, and require the nurse, midwife or person in attendance upon the infant, to report to a licensed physician within twenty-four hours after it has been noticed, the fact that this inflammation exists, and failure to do so is punishable by fine or imprisonment, or both. Neglect of early treatment may result in blindness within a fortnight."

I believe that such information as this should be widely disseminated, and that until a better form is suggested some systematic distribution of a leaflet of this kind could be well practiced.

Ranking next in importance is the story of the statistics in sympathetic ophthalmitis. Injury at times involves both eyes, but more often one, this proportion holding true even for those admitted to the institution. We have reported under the head of injury only those cases in which sympathetic ophthalmitis had not developed. Injury is

not always avoidable, but sympathetic ophthalmia is preventable. When we reflect that these cases are practically all in juveniles or young adults, we receive a suggestion as to the total number of cases of blindness occurring in persons of all ages from this cause each year. In ten years twenty-eight cases of blindness from sympathetic ophthalmitis were admitted, all of which under proper observation could have been prevented, and all representing an absolutely hopeless prognosis as to improvement in vision. The data secured by our records indicates that in very few of them was enucleation thought of or any serious importance attached to their eye injury until after development of sympathetic inflammation, and in almost every case the services of an oculist were not secured until this had developed. It would seem that not only the laity but the general practitioner needs instruction as to the seriousness of penetrating wounds of the eye. In most of these injuries the sight of the eye concerned has been seriously compromised from the beginning, and it would seem to be a very poor process of reasoning which would neglect the removal of such an eye unless assurance had been given by one competent to pass upon the matter that there was no risk to the sight of the fellow eye from so doing.

The institution furnishes, of course, many illustrations of the virulence of gonorrheal infection and the necessity for care to prevent involvement of the eyes in this disease.

The most lamentable illustration of this is furnished by the members of a family from one of the southern Ohio counties. Three members of this family were admitted to the institution, the father to learn the broom trade, the children to be educated. All were suffering from an exuberant form of trachoma, with corneal ulceration and destruction, perception of light being the best vision recorded in any of the cases. The history showed that five cases of blindness occurred in this one family from a single gonorrheal infection.

Pemphigus conjunctivæ is a disease that I have rarely met in private practice. Two adults were admitted to the institution in whom this diagnosis was made. There was at the time of admission practical obliteration of the conjunctival cul-de-sacs and a dermal transformation of the epithelium, including that of the cornea. This became dessicated from dryness, so that the patients had practically nothing more than light perception until the use of inunctions of castor oil were begun, a small amount of which each day smoothed the corneal epithelium and greatly

increased its transparency, giving each patient a fair form vision.

It will be noted that there was a total of eighty cases of congenital blindness in the admissions, and by far the greatest number of these were those of congenital cataract. In ten years fifty-one cases of congenital cataract have been admitted. Though undoubtedly the great majority of these had some time been examined by competent oculists, in only 25 per cent. of the cases had any operation been made. The parents of most of these pupils readily consent to any operative measures that promise help, and some of them under our advice had had subsequent operations made by surgeons near their homes and not in the institution. During this time operation has been made upon twenty-three of these pupils and a total of twenty-nine eyes.

One of the interesting forms of partial blindness is that due to ectopic lentis, of which there have been three cases found. There is the wide variation in the choice of correcting the lens in these cases, a high power convex lens improving vision from bringing into proper focus the rays going through the aphakic portion of the pupil, while a lens of vastly different character sometimes improves from correction of any error of refraction noted in the media in which the lens was concerned.

It seems to me that in some of these cases of ectopic lentis the removal of the lens might be practiced, but in the cases under my care vision has always been sufficiently good that I have not felt warranted in advising removal.

Albinism as a cause of defective vision is well recognized, and we have six cases admitted in ten years, though others previously admitted have been under observation. There are three pairs of brothers and sisters in this group, the most interesting pair being that of children who are presumably full blooded negroes. I have been unable to run across anything showing the frequency of albinism in the negro, though I recall having read a paragraph in one of our weekly medical journals a few years ago, contributed by a physician from Philadelphia, who reported having seen a case while on a trip to Liberia, this communication alluding to the great rarity of recorded cases of this kind. These children preserve the usual features and kinky hair of the African, with absence, however, of pigmentation, though there is distinct difference in the complexion and coloring of the hair of the African as compared with the Caucasian albino.

In congenital anomalies total aniridia was found twice. The history of the first case would

indicate that early in life there had been unusual acuteness of vision in subdued light and at night, and marked photophobia always obtained in daylight, pain in the eyes resulting from prolonged exposure in strong daylight. Later there was noticed gradual diminution of vision, and at the time the pupil (adult, aged forty-one years) was admitted there was total optic atrophy. In this case a most interesting story of prenatal influence had been constructed and handed from parents to patient as to how during the early months of pregnancy the mother had been frightened by the springing of a strange cat upon her bed, the cat's eyes aglow from the light of the lamp that stood near by.

In the second case, aged 20 years when admitted, there was associated ectopia lentis, second-

considered as positive as can be without dissection, yet the possibility of error must be admitted. The degree of microphthalmus varies from those grades of retarded or arrested development which merge into cases of high hypermetropia down to those cases in which the ocular bulb was recognized merely as a somewhat denser mass under the conjunctiva in the orbital tissues.

One of the four cases of retinitis pigmentosa admitted to the institution was a perfect example of this disease without pigmentation. The family history, the gradual onset of the disease, contraction of the field, and night blindness were all typical and the ophthalmoscopic examination showed a retinal atrophy and attenuation of vessels, but entire absence



Brother and Sister—Albinism in the Negro

dary cataract and glaucoma with ciliary staphyloma. Vision was light perception in right, and total blindness left eye.

One case of coloboma of the iris included cleft of the choroid, vision being 20-200. Another case is recorded as microphthalmus with which the lesion was associated. In a third the choroid did not show the cleft, but there was micro-cornea.

As to the rarity of anophthalmus in comparison with microphthalmus, the records show six cases of the latter to only one of the former. While our diagnosis of anophthalmus is

of pigmentation, notwithstanding the fact that vision was reduced to 20-200.

Another of these cases had been associated with chronic inflammatory glaucoma.

Matter for inquiry is the part heredity plays in blindness.

Syphilis underlies probably every case of interstitial keratitis. It is probably the frequent remote cause in a majority of cases of congenital neuro-retinitis and chorio-retinal atrophy.

The nephritis of pregnancy seems a probable cause of some of the cases of congenital optic atrophy, and faults of metabolism in the mother

may be responsible for congenital cataract; but, bearing in mind that low grade uveal disease is responsible later in life for lens changes, and that specific disease is the most common cause of uveal inflammation, it is not unreasonable to say that attenuated specific taint is present as a cause of many cases of congenital cataract. It is not the rule to find a healthy retina in cases of congenital cataract. The opacity of the lens is a part of more extensive pathological change to be found in the iris, choroid, retina and nerve, though it is interesting to observe that in some cases of congenital cataract there is a progressive improvement in vision for some time after the obstruction in the transmitting media has been removed due to retinal education from functional activity.

Of the susceptibility of the eye to uveal disease where posterior polar or even congenital cataract is present, we have had evidence in those cases where after perfect removal of lens and capsular opacity, with good reading vision, this vision later became greatly reduced—in one case without opacity of media, due entirely to a low grade central chorio-retinitis, and in another with appearance of a very slight dotting and pigmentation on a filmy capsular membrane in the pupillary area.

In nearly all these cases of congenital cataract convergent squint and nystagmus are present, and we have seldom found a case of congenital cataract in which there was binocular single vision.

It has always been the rule in these cases to take the poorer eye for the first operation. The reason for this is that the vision in the average case is sufficient to render valuable service to the child, and even where partial pupillary opacity is present the existence of accommodation gives greater pliability in the use of the vision than in the aphakic eye. If a successful result is obtained in the first eye so that its vision is made better than or nearly equal to that of its fellow, operation was made on the second. Generally three operations are required, needling, extraction, and a final operation on the capsule.

As a result of our work with this class of cases, whereas in the early ones a very limited discission was made with the view of getting the largest absorption of the lens without producing high tension; on the other hand, in our most recent cases I have endeavored to make a free discission and have rather welcomed rapid swelling and breaking up of the lens, necessitating linear extraction, sometimes under general anesthesia, in a few days following. It seems to me

that where this has been done we have had less difficulty in dealing with the capsular or membranous opacity that might be present after absorption of the lens. Another reason for this is the fact that in many of these cases in the lens nucleus or directly under the anterior capsule is found usually a pyramidal calcareous mass, sometimes two millimeters in its longest measurement, which, if not removed before lens absorption, was held responsible for the exceedingly thick and tough membrane which is practically always found later and which is equally difficult to cut so as to leave a clear pupil.

In some cases of congenital cataract, especially the variety in which there is an anterior polar opacity with or without an underlying chalky spicule, with the other portions of the lens transparent iridectomy alone offered a better operative procedure. Iridectomy was found useful in cases where a tough opaque membrane occluded the pupil after lens operation.

The juvenile eye seems to be markedly tolerant of operative procedure and to rapidly recover from the traumatism inflicted by discission, extraction, and needling, save in those few cases where operation was attempted in cases of cataract following an iridocyclitis in which long-continued inflammation and irritability followed any operation attempted.

In connection with cases of congenital cataract we note a wide variation in acuteness of vision in those cases where the pupil has been made perfectly clear. The best recorded vision in any of the cases of congenital cataract is 20/30, while it varies from this down to poorest form vision. Most of the cases, unless there were other gross lesions, had vision sufficient to enable them to read type equivalent to number 12 of the Jaeger reading type.

One case of interest is that of a pupil aged twenty years who in infancy had been unsuccessfully operated, infection resulting in total loss of the eye. Operation in this case consisted in discission of a thin, almost membranous cataract, and later removal of the capsule and membrane by forceps; a perfectly clear pupil resulted. At first this boy with difficulty made his way about the halls, almost no improvement in vision at that time being noted. Later there was an improvement to 5/50, and when last observed he was, with the aid of strong convex lenses, reading ordinary print.

Two of the most satisfactory cases were those in which operation was performed in high myopia, in one the myopia being uncomplicated, in the other associated with posterior polar opacity. In the uncomplicated myopia vision was brought

from 4/30 with best correction to 20/50 with correction. In the case with the posterior polar opacity dissection was followed by intumescence of the lens requiring extraction in less than a week after the first operation. In both of these cases both eyes were operated and the procedure in each eye was identical. In the case with the posterior polar opacity, as the lens matter was evacuated from the anterior chamber by backward pressure of the keratome the zonule ruptured, the tear being like that of a three-point star, with a resultant perfectly clear pupil. In this patient the vision was brought from 20/100 up to 20/30. The enjoyment of this improvement resulted in over-use of the eyes so that a low grade uveitis was produced, and about a year later on examination a filmy pigmented membrane was found in the pupillary area. This was very easily torn, with some improvement of vision, but not back to that first acquired after extraction of the lens.

I have attempted operation for extraction of the lens in a number of cases of complicated cataract. One was in the case of an adult totally blind from neuro-retinitis in the left eye and with a brown cataract, tremulous iris, and a diagnosis of partial retinal detachment in the other, this eye having good light perception in all parts of the field save downward, but not sufficient to enable the patient to make his way about. He had been refused operation before entering the institution, but assumed all responsibility if I was ready to undertake extraction of the lens. On corneal section not only did the aqueous escape, but general collapse of the eye began, evidently from communication with the vitreous chamber. The lens was removed by means of a scoop and a narrow iridectomy performed after removal of lens. Light sensation was strong at the time the eye was bandaged. Two hours afterward there was a sharp pain and profuse hemorrhage choroidal; this being the only case of this kind that I have met with in my own practice. The eye was not enucleated and there was no infection. The wound gradually cicatrized, with a shrunken globe finally resulting.

In another case of double specific iridocyclitis operation was attempted, it being purposed to perform a preliminary iridectomy. The iris was so matted to the lens that it was practically a case of tearing this loose for the coloboma. A long period of inflammation and irritability ensued with fresh exudate between the iris and lens so that extraction was never attempted.

In another case of double iridocyclitis the operation was eminently successful, a good colo-

boma having been secured by a previous iridectomy. The lens was later extracted, and still later a needling operation performed on the capsule. This was not successful, so that through a keratome incision the pupillary membrane was extracted by forceps, with the result that good reading vision was obtained.

In a pupil aged twenty-three, with double degenerative (brown) cataract with subnormal tension and tremulous iris, left eye totally blind, right eye central light perception, dissection was attempted, but with no apparent result naturally. Feeling that there was nothing to lose and possibly something to gain, the operation of couching was resorted to in this case, the lens being torn loose from its attachment and pushed well down and behind in the vitreous chamber, and the patient kept in bed until irritability ceased some weeks later. Two months after operation the patient went to his home, and during the summer suffered from an inflammatory attack. From the patient I take it that at the subsidence of this there was an operation on the capsule, though I was unable to obtain a report from the surgeon. This pupil afterward returned to the institution, and he has had an exceedingly useful eye, his vision at the last time he was seen being 20/30 with +11.00 D. S. O +1.50 D. C. axis 30, and sufficient to make him much more capable in his work of piano tuning.

The field of operative procedure at the institution, though unique, is comparatively limited. We have borne in mind that the pupils are there primarily for educational purposes, and have not sought to build up a hospital in a school. Despite this we have been called upon for the welfare of the children to operate where indications were plain. Operations for congenital cataract were most frequent—40 in all; enucleations, 23; expression for trachoma, 8; plastic operations upon the lid, 7; extraction of lens in complicated cataract, 5; lachrymal abscess, 5; iridectomy, 6; extraction of lens for myopia, 3; couching lens, 1; conical cornea (cautery), 2; other minor operations not recorded.

DISCUSSION.

C. S. Means, Columbus: This paper has been both interesting and instructive. I wish to speak only of a few points brought out by the essayist. I am of the belief that we doctors as well as citizens of the State of Ohio are not sufficiently acquainted with the scope and uses of the State School for the Blind. Many cases have come to me asking advice whether or not they should place their children in the School. Very often they have tried to get rid of a child who is incorrigible and not a fit subject for the School. In many other cases where

the child is almost or wholly blind and should be placed in the School where they could be given an education they are withheld from this important aid to their future by ignorant parents who cannot be made to understand that their child will be well taken care of and benefited, thus leaving many blind children to become a public charge. If there was some system by which all people who are blind or nearly so could be notified of the benefits derived from this Institution, I believe it would do a great deal more good to the people of Ohio.

One point brought out by the essayist in this paper seems of vital importance to us. It is the increase of percentage in cases sent in to the Institution, blind from the effects of ophthalmia neonatorum. We have heard from those who have spoken on this subject here as well as the general opinion among oculists that this disease is considered curable as well as preventable in the great majority of cases. Then why should the loss be greater now than it was ten years ago? I believe the doctor's paper gives the percentage about three per cent. greater today than it was when he entered the Institution ten years ago. I do not believe the fault lays with the oculist. It must be laid at the door of midwives, nurses, or lack of knowledge among the laity.

Dr. Brown, I believe, has given us a good idea in his report, saying that all nurses and midwives should be compelled by law to report such cases, and that a plainly worded description of the dangers of "sore eyes" after birth should be printed and left with the parents. He also says there is a law to this effect but it is a dead letter one. We should never allow as important a thing as this to become a farce as this law has been. We all agree that ophthalmia neonatorum is a great deal more amenable to treatment than trachoma. Yet in his paper he states that ophthalmia neonatorum is on the increase and trachoma in the last ten years has decreased from eight to three per cent. This must be on account of the general knowledge being disseminated to the laity about the evil effects of granulated lids, and the great care taken by the United States Government toward stamping out this disease. We all are aware that the government will not allow any one to enter our country without having been investigated both before entering the ship and on landing. Also compelling all steamship companies to return at their own expense any one developing this disease within six months, making them very careful as to whom they allow to come here. If as much care were taken with the ophthalmia neonatorum, I am sure the percentage could be lowered to a greater degree than in trachoma.

Another item in the doctor's paper was sympathetic ophthalmia. He says there are twenty-eight in the Institution who are there from the ravages of sympathetic diseases. We know that ninety-nine per cent. of these cases are either due to ignorance or neglect. Oftentimes we see cases where the parents or the adult refuse the advice of the oculist, and thus allow the eye

to go to destruction through lack of care. Here again we should have a law that would compel guardians or parents, or even the adult, to submit to the necessary treatment after consultation of two or three competent oculists. This, I believe, would lessen the great number of public charges we have in the Institution, to say nothing of the great injustice done to those who are ignorant of the results of this dread disease.

J. E. Brown, Columbus, closing: Dr. Weeks' remarks on vision in ectopic lentis were particularly interesting to me because possible operation in the cases of which I think there were three, was under consideration for some time. The best vision in that group of three was 20-50, and I think perhaps 20-70 was the other two, and I hardly felt justified with a vision of that kind in attempting to operate. With a vision of 20-100 I would have felt like advising operation in one eye and then if successful in the other. If conditions were favorable for dissection and absorption of the lens there is no reason why with 20-40 we would not be justified in doing the operation. In a state institution you cannot do this where there is fairly useful vision. Where the vision is below any practical point they welcome operation. But with a vision of 20-40 in institution practice if anything goes wrong you will be condemned and complaint may be made to the school authorities.

In regard to the matter of conical cornea, it has been my impression from the cases I have seen both in institutional and private practice, that the apex of the cornea was usually below the pupillary center and for that reason we get this peculiar reflex in the ophthalmometer and also the almost characteristic play of light in using the retinoscopic mirror.

Those of you who may be interested in these statistics will find the figures in the papers I have here today or in the transactions when the paper is printed.

In regard to our law in this state on ophthalmia neonatorum, we published in our last institution report a paragraph modeled on Priestly Smith's advice, and included in that the statement that the laws of Ohio recognize the importance of this and make it punishable by fine or imprisonment, or both, if a nurse or midwife fails to report cases of beginning ophthalmia. That report was read by a physician of Cleveland who wrote to the superintendent of the Institution and wanted to know when such a law was passed. He had never heard of it. It was passed by the legislature in March, 1894. No convictions have been made under it and the law is practically a dead letter. I presume three out of four physicians of the state do not know there is such a law, and the attention of the profession should be called to it. It is a matter of such importance and the law recognizes it, and a few wholesome enforcements of the act would do a great deal of good in helping to keep down the percentage of blindness from the most prolific source—ophthalmia neonatorum.

URETHRAL CARUNCLE.

BY CHARLES M. HARPSTER, PH. G., M. D.,
Toledo, O.

[Read before the Ohio State Medical Society, Cedar Point, 1907.]

My excuse for presenting apparently so trivial a subject is its frequent occurrence and the fact of its being overlooked so often.

Within the past year I have treated eleven cases of this condition, ten of which were referred to me by my fellow practitioners. So many of the sufferers were treated unsuccessfully for cystitis, etc., that it occurred to me to draw your attention to this annoying growth. It always occurs at or near the orifice of the urethra, and can be most readily detected by passing a probe or small sound, the end of which is wrapped with cotton, into the bladder and withdrawing same slowly. Any growth in the canal will thus be brought forward or out with the probe. The growth can be readily removed with a ligature or electrocautery snare, but removal must be complete.

The great amount of cystitis occurring reflexly with this trouble is sometimes remarkable. After removal of the growth the improvement in the bladder symptoms is usually rapid. Occasionally, however, the cystitic habit is so firmly entrenched that irrigation of the bladder is necessary for a short time after the removal of the caruncle.

I wish to remind you that several may be present in the same patient; also that recurrence of the growth may take place, and that very rapidly. I usually irrigate with silver nitrate or potassium permanganate solutions.

These tumors are very vascular and were first described by Samuel Sharp in 1750 (*Critical Enquiry Into the Present State of Surgery*, 1750, p. 168). He said: "Small excrescences may occasion violent disorders in so tender an organ as the urethra. I have seen a notable instance in the urethra of a virgin, where they grew in small quantity upon the orifice of the meatus urinarius, and for many months had produced the most excruciating torment, which continued until I had totally extirpated them."

Many of our writers do not bring out the point clearly that the caruncles may be situated back of the orifice of the urethra and in the canal. I have seen this in a number of cases, and it was with some difficulty that the growth was brought forward for removal.

It is my practice in examining a patient for some obscure bladder difficulty to in every case

search for a caruncle. This was brought forcibly to my mind a number of years ago when I was asked to treat an elderly lady for what appeared to be a violent cystitis. She had been treated for a number of years by some of our leading surgeons, and it was with considerable hesitation that I took the case, as I felt that it would be a hopeless task. After several months of failure, one day on removing my cystoscope I found a small caruncle protruding from the urethra. On removal of this growth the improvement was immediate, and a cure rapidly ensued. This lady would have to urinate as many as twenty times during the night, and as nearly as often during the day. This case was an eye-opener, as it were. I had never before encountered (that I know of) this condition. By relating my experience I may be able to stimulate some of my colleagues in this branch of surgery to always examine every bladder case for caruncle.

The ordinary urethral speculum is useless. The urethroscope is often worse than useless, as we are deceived in growths near the orifice slipping from the field as the urethroscope is removed.

In the same year that Sharp cited this condition G. B. Morgagni wrote of a case in a post-mortem examination upon a girl fifteen years old. Since this time English writers have devoted much attention to this affliction. Howard Kelly says: "The growth is usually seated upon the external orifice of the urethra, somewhere on the lower half; it is of a florid or a dusky red color, and is attached by a pedicle or by a broad base, which sometimes extends up into the urethral canal." My cases have nearly all been attached by a broad base and extended up into the urethra. Kelly says: "The appearance varies greatly. Sometimes it is flat and rugose, and but slightly elevated, and looks much like a raspberry; at other times nodose, or, as in the drawing, the tumor is narrow, with a pedicle and a sharp, crenated edge, and stands out from the urethra with its long axis vertical, compressed by the labia on the sides."

Histologically the tumor is made up of connective tissue and hypertrophied papillæ, with numerous dilated vessels. It is covered with pavement epithelium. The presence of any unusual number of nerve fibres or any unusual arrangement of nerve endings has not been demonstrated, although some pathologists claim that there is a very rich distribution of nerve filaments in the growths.

The clinical history should be striking to one on the alert. So many do not go into the physical examination, however, but are content to treat medicinally for cystitis.

Few of the growths are painless. The pain is usually intense during urination. With one patient I had the pain was so intense that she screamed during urination. In some patients the urine will be held for hours to escape the pain of passing it, looking forward to the time with horror. The wear and tear on the nervous system is so great that the health is completely wrecked.

Goodell pictures an extreme case, as follows: "A young married woman, broken down in mind and body by her sufferings. She was peevish, morose and melancholic, and had dysmenorrhea and every imaginable ache. Coitus had not been indulged in for many months, and she had taken to bed. Neither her medical attendant nor myself could believe that the presence of a small urethral caruncle could account for the pale lips, hollow cheeks, sunken eyes, and for her grave mental and physical manifestations. Yet, after we removed the caruncle she became another woman. As if by magic all her pains and aches, even her dysmenorrhea, left her."

When the growth is unusually vascular and its dilated vessels lie near the surface, hemorrhages are frequent and sometimes alarming. Dysmenorrhea and ovarian disease are among the commonest mistakes made when the diagnosis is based on the patient's description of her sufferings. Cystitis, as stated before, is the most frequent condition thought to be present, after the loose fashion of diagnosing diseases of the bladder.

Galvano puncture has been used to extirpate the growth by Sweetman, of Toronto, Ontario, with marked success. Fibroma, myoma or carcinoma of the urethra are much rarer and can be easily differentiated from the caruncle. Only a few cases of sarcoma of the orifice of the urethra are on record.

A CASE OF EXTENSIVE LUPUS OF THE FACE AND NASAL CANAL.

BY M. L. METZENBAUM, M. D.,
Cleveland, O.

The patient is forty-four years old. At the age of twenty-seven she developed lupus on the side of the nose and had a great deal of treatment. It healed and spread at different times. When the X-ray came out, in 1900, she took a course of treatment in Philadelphia, which healed it for awhile, but in six months it broke out and has been under treatment with the X-ray from that

time until last fall, and is growing worse all the time. I saw her last December, with this large mass on the right side of the face, and the entire left nostril was filled up with the material. Microscopically, it did not look like a lupus to me, but an epithelioma, and microscopically it proved to be such. I took the patient to our surgeon, Dr. Crile, who considered that only an operation would save her life and wanted to remove the nose and upper jaw. I thought that was extremely radical, so with the cold water snare I removed all of the material from one nostril, including the inferior and middle turbinate bones; that is, so far as I knew would be the inferior turbinate body. After the material inside was removed, I gave her an anesthetic and removed the outside, leaving quite a large hole in the face. Through the alæ I cauterized the face with Packard cautery and inside the nose as far as I could reach.

Now comes the question that neither I nor any one else can answer. The thing healed up very rapidly indeed, and I had had some little success with the use of radium in both lupus and epithelioma. She had used some tubes on it, but had no result. However, I gave her a tube of radium, and she used it daily within the nostril and on the face. The case was absolutely healed in less than forty days and has remained well from about the first of February until the present time. Even a large hole that went through the alæ nasi is absolutely well, and the large area the size of half a dollar on the face is perfectly well; and even if it were ordinary granulation tissue I think it would be remarkable healing. Inside of the nose is as smooth as can be, and when the society met in Cleveland many had an opportunity to examine the woman, and it seems as though the mucous membrane is absolutely normal.

The microscopical examination was made by the hospital pathologist, who claimed it is an epithelioma. He has gone through a number of specimens. I can supply the specimen of any care to see it.

DISCUSSION.

M. L. Heidingsfeld, M. D.: Without wishing to cast any reflection upon the essayist and those who have taken part in the discussions I feel obliged to state that the successful treatment of these cases must be considered with considerable latitude. Tertiary syphilis, lupus and epithelioma bear at times a most deceptive resemblance to each other and cures are often credited to one affection, when in reality it may belong to an entirely different class. The deception sometimes

is so marked that even a specialist, who is constantly seeing a large number of these cases is apt to be deceived for the time being, until the true condition reveals itself from a more prolonged and careful observation of the case. The diagnosis of cases of lupus in particular, unless they are very characteristic in their appearance and clinical history should be confirmed I believe by test injection of tuberculin, preferably that of a reliable German product. In all cases where there can be any possibility of doubt, the diagnosis should be confirmed by a histologic examination. When these precautions are taken, then we are in a position to better judge the efficacy or inefficacy of our therapeutic agent. In regard to the X-ray, I believe it to be efficacious almost equally in the hands of the quack and the more or less inexperienced operator, as in the hands of an expert, when judiciously used within reasonable limits. Its effect is for positive good or harm as regards each special case for which it is used, whether it is administered by one machine or another, with soft or hard tubes or for frequent short exposures or infrequent longer exposures, provided that it is not carried to the degree to become a pronounced irritant. It will answer better possibly if these special conditions are carefully watched in accordance with the special indication of every case, but its effect for good or harm will occur just the same irrespective of the technique, as long as it is not carried to the degree of producing an inflammatory reaction, although the recovery may be less prompt and less rapid.

S. J. Wright, Akron: The importance of the softness of a tube in skin work is very apparent. A soft tube gives greater volume of current will less penetration, while a hard tube scarcely affects the skin, but passes through it to deeper structures. Cases in practice illustrate this very important fact. Nodular or papillomatous lupus without ulceration resists the hard tube rays, usually, while soft rays, alternated with rays from an arc lamp, usually soften and dissolve the hypertrophies.

In ulcerating lupus a better treatment consists of radiation by a five thousand candle power arc lamp with a blue glass screen, and a reading glass to focus the rays on a small spot. A local anesthetic, like cocaine, may be used, and the surface kept from overheating by an electric fan. Healing is very rapid, may be seen while you wait, and is painless. Yeast germs are the natural enemies of the tubercle bacillus, and a watery solution of brewer's yeast will quickly heal a tubercular ulcer of skin or of mucous membrane. In tubercular pharyngitis an atomizer will carry a strained solution of yeast of any strength, to the affected area, and it can be inhaled. The speaker has yet to see a case fail to heal in five days. A smooth pink surface takes the place of the red, rough, raw area, even in one case which was moribund from tuberculosis of lungs and intestines, larynx and pharynx. The throat healed in five days, the patient smothering to death from lung involvement, three days later.

M. Metzenbaum, Cleveland: The patient was under treatment about one year and she had the iodide of potash and mercury without any

response whatever. Dr. Stermner had her for a period of about one year and iodism was the result. I think her family history would practically exclude lupus so far as one could judge from social standing. At any rate, the result was good. I do not know whether the diagnosis was or not.

BOOK REVIEWS

DISEASES OF THE HEART. By Prof. Th. von Jurgensen, of Tübingen; Prof. Dr. L. Krehl, of Griefswald, and Prof. Dr. L. von Schrotter, of Vienna. Edited, with additions, by George Dock, Professor of Medicine, University of Michigan, Ann Arbor. Octavo of 848 pages, illustrated. W. B. Saunders Company, Philadelphia and London, 1908. Cloth, \$5 net; Half Morocco, \$6 net.

This latest edition of Nothnagel's Practice maintains the high standard established by its predecessors. In treating of the diseases of the heart the authors have sought to elaborate the subjects assigned to each systematically and with the thoroughness and comprehensiveness so characteristic of German writers. Not only are the direct cardiac changes discussed, but the secondary remote and associated disturbances are equally considered. The various conditions are graphically described and illustrated with clinical cases and often autopsy findings. The clinical histories in many instances include daily records, extending over considerable periods of time while under observation in hospitals and dispensaries, which add greatly to their value. The care with which the physical examinations are given is especially to be commended, and the chapters on treatment are extremely satisfactory.

It is impossible in such a brief notice to give an adequate idea of the value of such a work; it will appeal to all thoughtful practitioners and will amply repay careful perusal and study.

The translation of the work is of the character one would expect from the high standing of the translator, and the additions to the text by the American editor have added materially to its practical value in this country.

PROGRESSIVE MEDICINE, A QUARTERLY DIGEST OF ADVANCES, DISCOVERIES, AND IMPROVEMENTS IN THE MEDICAL AND SURGICAL SCIENCES. Edited by Hobart Armory Hare. Vol. IV., Lea Bros. & Co.

Progressive medicine, while classed among medical journals, is really a series of books which give the latest ideas in various fields of medicine and surgery.

The fourth volume appeals perhaps in a stronger sense to the general practitioner than the earlier volumes. The newer methods of diag-

nosis and treatment of diseases of the digestive tract and allied organs, the liver and pancreas are given by J. Dutton Steele, of the University of Pennsylvania.

Very interesting data are given in the diagnosis of gastric carcinoma, while nothing entirely new is advanced as a pathognomonic symptom. The tendency shown is to make a very much more careful study of the patient, with the end in view of making an earlier presumptive diagnosis, that an exploration may be made before the process is too extensive for resection.

The suggestion that anti-syphilitic treatment be tried is a valuable one, for about 5 per cent. of apparent carcinoma ventriculi are specific in origin and will be cured by mercury and potassium iodid.

Professor Bradford discusses diseases of the kidneys, a particularly interesting portion of which is renal tumors in children.

On page 140 the present advances in the use of Bier's induced hyperemia for infection are explained.

This method of treatment has been used in all lands, and the happy results indicate the probable permanency of the plan.

In a work of such importance the mention of particular portions of especial importance is no easy task.

However, the chapter on tumors of the extremities, with the excellent cuts, forms a monograph on the subject that arrests interested attention of all.

Progressive medicine should be studied by every physician who would be abreast of the latest work. Unlike some other annuals and quarterlies, the contributors do not obtrude their own work when reviews of the writings of other workers are more to the point.

THE TREATMENT OF FRACTURES: WITH NOTES UPON A FEW COMMON DISLOCATIONS. By Chas. L. Scudder, Surgeon to the Massachusetts General Hospital. Sixth Edition, Revised and Enlarged. Octavo volume of 635 pages, with 854 original illustrations. W. B. Saunders Company, Philadelphia and London, 1907. Polished Buckram, \$5.50 net; Half Morocco, \$7 net.

Six editions attest the popularity of this practical work. It is one of the best works on the subject of fractures and is kept modern and grows better with each revision.

The author advocates the X-ray and the more frequent use of general anesthesia in the examination and application of the primary dressing to fractures in or near the important joints; and we note with satisfaction his plea for the fre-

quent inspection of the seat of fracture, a fresh application of the dressing and the readjustment of the splints.

Rare fractures are not considered, although surgical intervention in the case of certain fractures is considered. "Closed" and "open" are terms used to designate the time honored "simple" and "compound" fracture. The text has been lengthened by the introduction of chapters on obstetrical fractures in the newborn, to fractures of the zygoma, of the malar bone, of the superior maxilla, of the head and neck of the radius, of the neck of the femur, and of the carpal scaphoid; to unreduced dislocations of the elbow, to acromio-clavicular dislocations, to pathological fractures, and to Volkmann's contracture. The chapters on the Roentgen ray in its relation to fractures, the ambulatory treatment of fractures, the treatment of gunshot fractures, a discussion of the more common dislocations and a consideration of the anatomy of the epiphyses will serve a useful guide to the practitioner.

Many of the lesions are illustrated by photographs, skiagrams, X-ray tracings and prepared museum specimens.

THE TREATMENT OF INTERNAL DISEASE FOR PHYSICIANS AND STUDENTS. By Dr. Norbert Ortner, of the University of Vienna. Edited by Nathaniel Bowditch Potter, Visiting Physician to the New York City Hospital, to the French Hospital and to the Hospital for Ruptured and Crippled; Instructor in Medicine. Translated by Frederick H. Bartlett, from the Fourth German Edition. J. B. Lippincott Co., Philadelphia and London.

Ortner's lectures are well known to the readers of German writers on medicine, and they, with many others, will welcome such an excellent translation as the present volume from the fourth German edition of this work. The author writes from his own extended experiences in internal medicine, and, while emphasizing throughout "the importance of the mechanical, dietetic, climatic, hydrotherapeutic and other extra-medicinal methods," he places especial stress on the use of drugs and gives numerous prescriptions which have proved efficient in his hands. The American editor apologizes in the preface, it seems to us quite needlessly, for "the profusion of prescriptions and the author's apparently perfect trust in so many drugs."

In these days of therapeutic nihilism the student and young practitioner are too often taught to scoff at drugs and pay little heed to their use.

(Continued on page 243.)

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THE NEXT ANNUAL MEETING

As previously announced, the sixty-third annual meeting of the Ohio State Medical Association will be held in Columbus on May 6, 7 and 8.

The capital city stands ready to gladly welcome the physicians of the state to this meeting, and from its record of hospitality in times past its guests may be assured of the warmth of the welcome extended this year. This, together with the central location of Columbus and its accessibility from every point in the state, should lead to the largest meeting by far in the history of the organization.

This year the local committee has secured for a meeting place the Memorial Hall, which will very comfortably afford space for all of the section meetings under the same roof. It is an ideal building for the purpose, and never before has Columbus been able to so adequately arrange for the state meeting.

On another page will be found a preliminary program, which, while subject to change, will give some idea of the extreme-

ly interesting and valuable papers which will be presented.

Let every one determine to come, if in any way possible. Remember that a little change, a little relaxation, a little brushing up in the discussions, a little social mixing with your fellow practitioners will do you a world of good.

A GOOD BEGINNING

The organized medical profession made its influence felt at the recent Republican convention in Columbus. Eighty-nine of the 815 delegates were physicians, enough to show that the medical profession was entitled to some consideration in matters political. At a meeting held prior to the general convention a resolution was passed seeking to have inserted a plank in the party platform bearing on the National Bureau of Health, and Ben R. McClellan, of Xenia, and W. H. Beggs, of Columbus Grove, were appointed to appear before the Committee on Resolutions in behalf of the resolutions. They secured an audience and introduced C. A. L. Reed, of Cincinnati,

who presented the merits of the measure so clearly and forcibly that the Hon. Theodore Burton, the chairman, remarked, "The subject is most worthy and worthily presented, and must receive the same consideration with other subjects of equal importance," and thereupon it was ordered that the Republican party in Ohio pledge itself to favoring "the organization of all existing national public health agencies into a single national health department."

This is a distinct step in advance. The medical profession must assume the burden of responsibility in national matters incurred by its special knowledge along health lines. Eighty-nine delegates out of 815 is not the proper proportion if we would accomplish all that we could wish. Let us begin even now to look ahead two years and be prepared to double at least our representation in the next convention, for it is *votes* that count.

LEGISLATIVE WORK

The members of the association over the state, unless they have participated in the work, can have put little appreciation of the difficulties met by the Legislative Committeemen in their endeavors to promote the enactment of laws favored by the medical profession purely and solely for the raising of its standards and for the betterment in general of civic conditions.

In spite of nearly twenty centuries of the new dispensation, the Golden Rule, while theoretically the basis of our Christian civilization, is very far from being worn out from over-use. Human nature changes very slowly, and the instinct of self-preservation has developed into desire for personal aggrandizement to such an extent that cutthroat competition and the crushing of opposition are the rules of commercial interests. So much is this true that business men today regard with suspicion any one who claims to be actuated by altruistic

motives. It is the old story of the English cynic who wagered that he could offer for sale on the streets of London gold sovereigns for a shilling each with no buyers and won his bet.

Every time the medical profession supports a legislative measure, urging its passage as a benefit to the community, immediately that measure is scrutinized with microscopic attention. There is said to be "a nigger in the woodpile," and the claims of disinterestedness are treated with smiles of incredulity, open disbelief or derision.

Having appeared with other members of the Legislative Committee several times before committees of the Legislature, the writer fails to remember a single instance in which the motives of the physicians present were not impugned and even actual charges made of self-seeking and lobbying for personal aggrandizement. In fact, seldom if ever does the opposition argue against one of these bills on the actual merits of the case, but occupies itself with florid statements and heated language, which, stripped of sophistry, amounts chiefly to denunciation of the medical profession and assertions that bills so supported are contrary to "business principles" in that they stand in the way of somebody's making money, which is the God-given right of every American citizen, and at the same time, in some mysterious ways, these bills are to benefit "the doctor"! It would seem to be a mistake, this claiming of disinterestedness, because the laity simply cannot or will not understand it. It is not good business. The public wisely winks one eye and sapiently judges our gold sovereigns to be but counterfeits and will have none of them!

If it were not for the fact that it is the innocent who would suffer, and if the feeling of *noblesse oblige*, which is so deeply entwined with our traditions, did not compel us to carry on the fight, one would feel

like throwing up such a wearisome contest. There is no danger, however, of such a shirking of responsibility. Never before has the medical profession been so well organized or shown such an aggressive spirit. We have assumed our "white man's burden." The very character of the arguments of our opponents in this work shows the weakness of their position and how greatly they are alarmed. They can only play to personal prejudice and invoke the business instincts of present day commercialism, and such opposition cannot endure.

EDITORIAL NOTES

The following editorial recently published in the Ohio State Journal is an encouraging sign of the times, and shows the leaven that is working in the minds of thinking people. In time we hope that our daily papers will be bold enough to actually name the specific "catarrh cures" which contain cocaine, and the headache tablets which kill the unwary. In the meantime such articles as these will help educate the people and crystallize public opinion:

SOMEWHAT CRIMINAL.

Practicing medicine is a pretty dangerous thing for the patient, if the man doesn't know anything about the science, and sometimes it is rather dangerous for the alleged practitioner himself, as was the case with a fellow out in Massachusetts who sold a person two bottles of "catarrh cure" that contained cocaine. The catarrh curist was arrested, fined \$50 and put in jail—a practical lesson to all who have no business to deal in medicine.

Then there was that woman, mentioned in the papers the other day, who gave the little girl attending her daughter's party some of her headache medicine, and then put the child to bed to sleep it off. The child went to sleep and never wakened again.

But these overt acts are not much worse than the simple carelessness of some people, as was the case of that woman who left her "heart medicine" on the table, where her little girl got it and ate a portion of the tablets. In a few hours that child was dead.

Sometimes these little medicine adventures do not result fatally. But most of them, if ignorantly taken, manage to get around among the organs somewhere and do more or less damage.

It is about as bad to deal haphazard with powerful cures as it is to go meandering about a magazine with a lighted candle.

ANNOUNCEMENT TO COLLABORATORS AND SECRETARIES.

Owing to the fact that the May number of THE JOURNAL will appear May 1, the time for going to press will be materially advanced; therefore it is desired that secretaries and collaborators will send in reports of county society meetings as early in the month as possible.

THE NEXT ANNUAL MEETING

The sixty-third annual meeting of the Ohio State Medical Association will be held in Columbus, Wednesday, Thursday and Friday, the 6th, 7th and 8th of May, and promises to break all records as to numbers in attendance and in the interesting character of the program.

The local committee has not completed its arrangements entirely, but has plans in contemplation which will it hopes, eclipse any previous meetings for the comfort and entertainment of the members.

HALLS.

The meetings will be held in the new Memorial Hall on East Broad street, between Fifth and Sixth streets, and ample accommodations will be provided for all the sections, general meetings, exhibits, etc., under the one roof. The main auditorium of this magnificent new building, seats nearly 5000 people, and in various parts of the structure are several halls, especially adapted for smaller meetings. More details will be furnished in the May number of the Journal which will appear on the first day of May.

PROGRAM.

The program is not ready to publish as yet owing to several changes to be made in titles, etc., but some idea of its character may be obtained from the following lists of subjects and essayists.

SPECIAL ADDRESSES.

It is a great pleasure to announce that special addresses will be made by men of such prominence in the profession as to greatly enhance the interest of the program and give pleasure and profit to the members and guests of the association.

"On Surgery," annual address, Robert T. Morris, New York City.

"On Medicine," annual address, F. Forchheimer, Cincinnati.

"On Genito-Urinary Surgery," Hugh H. Young, Baltimore, Md.

Other special addresses may be announced later.

GENERAL PROGRAM.

SURGICAL SECTION.

"Rupture of Sigmoid Flexure from Inflation with Compressed Air," Report of Case, Fred Fletcher, Columbus. "Post Operative Complications," F. D. Barker, Dayton. "Anesthesia," Myron Metzenbaum, Cleveland. "Anesthesia," R. A. Rice, Columbus. "Ptosis of Gall Bladder, with Report of Cases," Edwin Ricketts, Cincinnati. "Comments on the Surgery of the Gall Bladder and Bile Ducts," W. D. Hamilton, Columbus. "Treatment of Popliteal Aneurism, with Report of a Case," C. F. Hegner, Cincinnati. "Seminal Vesiculitis Versus Appendicitis," Thomas Grant Youmans, Columbus. "More About Cancer of the Rectum," Geo. B. Evans, Dayton.

GENERAL MEETING.

"The Value of Gastric Lavage," Joseph Eichberg, Cincinnati; "The Diagnosis of Tumors of the Spinal Cord," W. B. Laffer, Cleveland; "The Relative Indication for Cesarean Section, Based Upon an Experience of Fourteen Cases," C. N. Smith, Toledo; Title unannounced, L. C. Grosh, Toledo; Title unannounced, W. H. Snyder, Toledo; "Inflammation," S. P. Kramer, Cincinnati; "Mucous Colitis," Wells Teachnor, Columbus; "A Years' Experience With Lumbar Puncture," C. W. Stone, Cleveland; "Sciatic Pain as an Orthopedic Symptom," Albert H. Freiberg, Cincinnati.

MEDICAL SECTION.

"Achyilia Gastrica, and Mechanical Methods of Treatment," James M. Rector, Columbus; "Etymology and Pathology of Chronic Interstitial Nephritis, Including Urinary Findings," L. A. Levison, Toledo; "Arterial Changes in Chronic Interstitial Nephritis," C. F. Hoover, Cleveland; "Diagnosis and Treatment of Chronic Interstitial Nephritis," John H. Lowman, Cleveland; "The Present Status of Roentgen Diagnosis," Chas. F. Bowen, Columbus; "The Potentiality of Habit," C. D. Mills, Marysville; "Cystitis From a Medical Standpoint," A. J. McCracken, Bellefontaine; "The Relation of Bovine and Human Tuberculosis," A. B. Smith, Wellington; Title unannounced, Earl C. Gaver, Columbus; Title unannounced, Chas. Graefe, Sandusky; Title unannounced, J. B. Woodworth, Delaware; Title unannounced, A. S. Barnes, Columbus; "The Yellow Peril," Chas. B. King, Newark.

OBSTETRICS AND PEDIATRICS.

"The Hygiene of Menstruation," S. J. Goodman, Columbus; "Treatment of Puerperal Infec-

tion," W. D. Porter, Cincinnati; "Uterine Action in Dry Labor," A. J. Skeel, Cleveland; "Vaginal Cesarean Section," F. S. Clark, Cleveland; "The Management of the Third Stage of Labor," E. M. Doherty, Toledo.

"Surgical Principles in Obstetric Practice," Geo. C. Schaeffer, Columbus; "Placenta Praevia," A. H. Hill, Cleveland; "Some Etiological Factors Worthy of Consideration in Diseases of the Abdominal and Pelvic Viscera," H. B. Gibbon, Tiffin.

PEDIATRICS.

"Pediatrics, Why a Specialty," D. S. Hanson, Cleveland; "Broncho Pneumonia," George Murray Waters, Columbus; Title unannounced, J. J. Thomas, Cleveland; Title unannounced, John Phillips, Cleveland; Title unannounced, H. J. Gerstenberger, Cleveland; "Treatment of the Disease of Bones and Joints in Children," Walter G. Stern, Cleveland; "Pathological Attitudes in Children," S. L. McCurdy, Pittsburg, Pa.; "Acute Rheumatoid Arthritis in Children," F. P. Anzinger, Springfield; "Simple, Acute or Lepto Meningitis," J. Park West, Bellaire; Title unannounced, Park L. Myers, Toledo; Title unannounced, L. W. Ladd, Cleveland.

"The Education of Defective Children," Professor H. R. McVey, Sidney; "Two Cases of Nasal Frontal Meningocele, with a Review of the Literature of This Condition."

EYE, EAR, NOSE AND THROAT SECTION.

The following is the program for the Nose, Throat and Ear Section:

Wednesday, May 6th. 9:30 a. m.

(I) SYMPOSIUM ON HEADACHE.

(A) "Headache of Nasal Origin," Wm. W. Pennell, Mt. Vernon; discussion opened by H. B. Harris, Dayton.

(B) "Headache of Ocular Origin," Robert Sattler, Cincinnati; discussion opened by Wm. E. Shackelton, Cleveland.

(C) "Headache from the Standpoint of a General Practitioner," C. F. Hoover, Cleveland; discussion opened by E. W. Mitchell, Cincinnati.

(D) "Headache from a Neurological Standpoint," Herman H. Hoppe, Cincinnati; discussion opened by _____.

2. "Hay Fever, Pathology and Different Methods of Treatment," J. P. DeWitt, Canton, Ohio; discussion opened by C. L. Minor, Springfield.

3. "Observations on Diseases of the Ethmoid and Frontal Sinusitis," W. R. Dabney, Marietta, Ohio; discussion opened by J. M. Ingersoll, Cleveland.

4. "The Diagnosis of Frontal Sinus Diseases.

by the Roentgen Ray," Chas. F. Bowen, Columbus; discussion opened by J. E. Brown, Columbus.

5. "Chr. Fol. Tonsillitis," H. D. Rinehart, Dayton; discussion opened by Royce Fry, Cleveland.

6. "The Advisability of Operative Interference in Malignant Conditions of the Larynx," Samuel Allen, Cincinnati; discussion opened by A. B. Thrasher, Cincinnati.

7. "Otitis Med. Purulenta Syphilitica," H. A. Hart, Wooster, Ohio; discussion opened by John W. Murphy.

8. "Sinus Thrombosis, Diagnosis and Technique of Operation," J. N. Lenker, Cleveland; discussion opened by A. H. Marvin, Cleveland.

9. "Recent Advancements in Eye, Ear, Nose and Throat Work Through Bacterio-Therapy," Oscar Berghausen, Cincinnati.

10. "Expert Testimony and Medical Jurisprudence as Relating to the Eye, Ear, Nose and Throat," Spencer M. Jones, Cincinnati.

Evening Session, Wednesday, May 6th. 8 p. m.
"The Present Status of the Radical Mastoid Operation, as a Cure for Chronic Purulent Otitis Media," Wendell C. Phillips, New York.

Smoker for Eye, Ear, Nose and Throat section after Dr. Phillip's address.

1. "Bacteriology of the Conjunctiva," F. M. Weaver, Akron; discussion opened by A. L. Steinfeld, Toledo.

2. "Trachoma in a Sociological Aspect," C. C. Stuart, Cleveland; discussion opened by W. H. Snyder, Toledo.

3. "Extirpation of Lachrymal Sac. Indications for and Technique of Operation," C. S. Means, Columbus; discussion opened by T. F. Bliss, Springfield, Ohio.

4. "The Relation of Diseases of the Accessory Sinuses to the Eye," C. R. Holmes, Cincinnati; discussion opened by John A. Thompson, Cincinnati.

5. "The Non-Operative Treatment of Squint," Chas. Lukens, Toledo; discussion opened by Louis Stricker, Cincinnati.

6. "The Operative Treatment of Squint," C. F. Clark, Columbus; discussion opened by Geo. W. Marshall, Portsmouth.

7. "The Electro-Magnet in Removal of Iron and Steel Particles from the Eye," Victor Ray, Cincinnati; discussion opened by Derrick Vail, Cincinnati.

8. "Cycloplegia," Arthur J. Hill, Canton, Ohio; discussion opened by Horace Bonner, Dayton.

9. "The Practical Value of Indoor and Outdoor Eye Tests, in Railway and Marine Em-

ployes," C. W. Tangeman, Cincinnati; discussion opened by C. F. Clark, Columbus.

We believe the above program for the Eye, Ear, Nose and Throat Section, of the Ohio State meeting will prove interesting to all who attend the Columbus meeting.

The titles cover a wide range of subjects and include some of the most interesting points in this branch of work, and the professional standing of the essayists and discussants, insure a program of high character.

We have tried to arrange a program that would appeal to and be of value to the general practitioner as well as the specialist, and most cordially invite general practitioners to attend this section and participate in the discussions.

The papers are limited to fifteen minutes and the leading discussants are limited to five minutes.

Those attending are requested to register with complete name and address and whether practice is limited to Nose, Throat and Ear or Eye, Ear, Nose and Throat.

A fee of one dollar is charged to help defray the section expense and should be paid when you register.

WADE THRASHER,
Secy.-Treas.

DERMATOLOGICAL AND GENITO URINARY DISEASES.

"Address of Chairman," E. O. Smith, Cincinnati; "Psoriasis," V. P. Boreing, Lima; "Some Thoughts on Dermatology," David Mooney, Bellefontaine; "Two Case Reports," S. J. Goodman, Columbus; "Hematuria-Diagnosis and Treatment," C. D. Kurtz, New Philadelphia; "Carbon Dioxide, Its Application in the Treatment of Skin Diseases," Lantern Slides, M. L. Heidingsfeld, Cincinnati; "Surgical Treatment of Ulcerative and Purulent Cystitis," C. M. Harpster, Toledo; "Traumatic Hematoma of the Scrotum," A. B. Walker, Canton; "Posterior Urethritis," E. B. Tauber, Cincinnati; "Oido Mycosis, with Reference to Dermatitis Coccioides," A. Ravogli, Cincinnati; title unannounced, W. E. Lower, Cleveland; "Relation of Diseases of Prostate to Diseases of Rectum," E. B. Tobias, Bowling Green; "Some Essentials in the Treatment of Diseases of the Skin, with Special Reference to the Teachings of Lassar," Leo Reich, Cleveland; "Tuberculosis of the Testicle," H. E. Shilling, Troy; title unannounced, A. J. Markely, Cincinnati; "Adherent Prepuce, Its Sequelae," J. C. Larkin, Hillsboro; title unannounced, Jos. Rucker, Cincinnati; title unannounced, Edwin Tucker, Toledo.

Hugh H. Young of Baltimore, Md., will give

the special address before this section. A few more short papers can be used on this program. Any member of the State Society who has something pertaining to Genito-Urinary and Dermatological diseases he would like to present to this section, should send in the title at once to either W. I. Le Fevre, Secretary, Lenox Bldg., Cleveland, or to E. O. Smith, 19 West Seventh street, Cincinnati, Ohio.

PATHOLOGICAL EXHIBIT.

There will be an exhibition of pathological specimens, microscopic slides, etc., which it is hoped to make comprehensive and interesting. Space and a limited number of microscopes will be provided, and members wishing to submit specimens are invited to do so. J. J. Coons, of 106 East Broad street, Columbus, will have charge of this exhibit, and all inquiries should be directed to him.

GENERAL INVITATION.

While arranging primarily for the members of the State Association, Columbus extends a cordial invitation to all physicians to attend the sessions. Therefore it is hoped that members will extend this invitation to friends who have not yet joined the Association, and urge them to come and see what the organized medical profession is doing and whether they can afford to keep out any longer.

MEETING OF AUXILIARY COMMITTEEMEN.

There will be a meeting of the Auxiliary Committeemen some time during the State meeting, the time and place of which will be announced later.

CORRESPONDENCE

Marion, O., March 17, 1908.

To the Editor:

In the publication of my paper, "Glandular Fever," which appeared in the March issue, the printer or proofreader permitted several omissions to appear, which I trust you will correct in the April number, as follows:

Respectfully yours,

A. MELVILLE CRANE, M. D.

ADDENDA.

Since the writing of this paper, death has called one of the cases which I have reported in detail, viz., case No. III, whose convalescence was a tedious one. He continued to look cachectic all summer, and later in fall he was taken ill

with what seemed to be an attack of follicular tonsillitis; he had rheumatic pains in his legs, and at the same time a rash similar to urticaria, but there were petechiæ over the legs and one arm, which remained for some time. He was irritable, and had a decided heart disturbance, the heart was very much enlarged, pericardial adhesions were present, pleuritic adhesions over the base of the left lung, and Broadbent's sign was well marked. Localized dullness in various portions of the lungs; and his legs were very œdematous. The liver was enlarged and extended fully three inches below the free margin of the ribs, and there was abdominal ascites. His spleen was enlarged, and there were decided evidences of ulcerative enteritis, blood, pus, and casts in his urine, uremic convulsions in which he died. Tubercle bacilli were found in his feces. No autopsy permitted, but the physical evidences and symptoms would fully warrant the diagnosis of a general tubercular infection, involving the kidneys as well as the thoracic and abdominal viscera.

Carbon Hill, Ohio.

To the Editor:

Can you suggest some one who would like a good location? The people here want a doctor and are able to pay him reasonable prices. Inquire of any of our people or write to P. O. Box 13.

THOS. B. PARRY,
Clerk of Board of Education.

Dietel's crisis occurs in floating kidney. It is due to a twisting of the renal vessels, or compression of the kidney owing to the extreme mobility. The paroxysm is characterized by sudden abdominal pain, chills, nausea, vomiting and frequently collapse. The condition is frequently mistaken for renal or appendicular colic, and for the crises which occur in tabes dorsalis.

Quinke's capillary pulse is met with in aortic insufficiency. It is best seen in the finger nails, or by drawing a line upon the forehead, when the margin of hyperemia on either side alternately blushes and pales.

The bruit-de-diable, Nun's murmur, or venous hum, is a functional (hemic) murmur noted occasionally in the veins of the neck, and accompanies conditions of anemia or chlorosis. The patient may be aware of its presence, and the piping, constant musical hum is best heard on auscultation over the right pulmonary area.

MEDICAL ECONOMICS

The public hearing in House Bill 1127, the quack advertising measure, attracted representatives of the press, of the Proprietary Medicine Manufacturers of America and of quackery, on the one side, and of the Federated Women's Clubs and of the medical profession on the other. The alliance on either side is a study for the sociologist. Note the alignment. President Chaney and Attorney Douglass of the Proprietary Association directed the allied forces.

The discussion led to a compromise amendment to the Bill which eliminates "menstrual disease" as a feature. The newspaper proprietors were opposed to the lost manhood type of advertising. It is expected now that no further opposition will result after this compromise.

Mr. Bassett, playing to the grand stand of the Ohio Associated Dailies, ridiculed the efforts of the Committee on Public Policy and Legislation and opposed the bill as the "usual effort of doctors to secure patent medicine legislation during my five years experience as a member of the Legislature." He made this attack on the medical profession after the compromise amendment was about completed. Mr. Bassett's opposition placed him in a class by himself, and is understood when one learns of his acting as attorney for the irregulars in committee work.

Despite the efforts of the quacks and Mr. Chaney, the ethical standards of journalism, medicine and social organizations are identical with the best interests of society. If this were not true, these powerful organizations would be allied with charlatany and petty graft. The public service is the public interest. Journalism and medicine can not and should not exist only on this principle of action. These honorable professions should clean up on pernicious proprietaries, indecent advertising, illegal and criminal practice.

The laboratory chemist of the A. M. A. commenting on "tuberculoid tablets," advised by the Columbus Pharmacal Co., say: "The purpose of this formula is evidently to mislead, in view of this and the unwarranted statements made regarding the therapeutic action of this product, it has not been deemed of sufficient importance to submit the nostrum to an extended analysis."

The Editor adds: "As to the significance of the statement 'Guaranteed under the Pure Food and Drug Act,' the Secretary of Agriculture says, the statement does not mean that the United States Government guarantees the purity of

the article or guarantees that it is what the label says it is. On the contrary, the serial number is assigned to fix the responsibility where it belongs on the manufacturer and to protect innocent dealers. Any nostrum no matter how fraudulent, may carry a government serial number, even though it does not comply with the Food and Drug Act. In Vol. L No. 9, page 705 of the A. M. A. Journal, Dr. N. S. Davis of Chicago called attention to 'tuberculosis' and truly says: 'The people and the profession should be protected from such impositions by full information.'

On the same page of the Journal attention is called to the double dealing of Lehn and Fink of New York City, in exploiting Piperazine water. The false claims of one Edward P. Adams of Cincinnati, to being a member of the A. M. A. are exposed together with his made to order advertising articles.

In the preliminary meeting of physicians' delegates Mr. Chas. Upham of Canton, prosecuting attorney of Stark county, aspiring to nomination for attorney general, received censure for failing to prosecute cases of illegal practice brought by the State Medical Board. The attorney general is the legal adviser of the state board, hence the necessity of opposing candidates for this office whose records are antagonistic to medical practice interests.

Something went wrong in the management of optometry legislation. Disconcerted action in this has had a bad influence on all medical legislation, and methods must be corrected for future work. To this end an autopsy of the case is indulged.

Primarily the fault lies with the rank and file of the profession in not keeping pace with medical economics as they do in scientific matters. Legislation is an important part of organization work and requires careful consideration in order to maintain proper relations with the public and to preserve medical standards.

When medical economics secures a place in college curricula, physicians in turn will be able to teach committees and members of legislative bodies the real import of medical practice acts and elucidate the principles of all medical legislation. Then the relation of medical organization to the public health defense will be made clear. As it is, our efforts are regarded as an attempt to establish a medical trust. If phy-

sicians were better informed in these subjects and better organized, the profession would be placed creditably before legislative bodies.

If these subjects were mastered to the same degree as refractive work, the line of action would have been as well defined before the Committee on Medical Colleges of the Senate in the first public hearing on the optometry bill as a prescription for myopic lenses. As it was, myopic vision as to optometry legislation showed 20—200.

There has been an attempt in the last two years to organize legislative work on a new basis by amplifying the legislative committee in the appointment of an auxiliaryman in each component society. Chapter IX, section 2, of the by-laws in part reads: "Under the direction of the State Committee the Joint Committee shall represent the association in securing and enforcing legislation in the interests of public health and scientific medicine."

From this it appears that the Bureau of Ophthalmology opened the way to confused action in appointing a special committee of its own on optometry legislation, without definite instructions as to the measures advanced. It is the function of the Joint Committee to promote and enforce such legislation, especially in mooted questions, as may have received a general consensus of opinion, or to oppose such legislation as the case may be. In this instance the Joint Committee, "convinced against its will," supported the optometry bill on the presumption of its endorsement by a majority of the oculists of the state.

Later a general remonstrance, coming from physicians in various parts of the state, revealed an unsettled policy on this subject.

The Joint Committee was on record as favoring the bill, a fact used by the opticians in arguing for the measure. The State Committee hesitated to exercise the provision of the by-laws to direct legislation in this instance, for the further complication that the House of Delegates, meeting with the Joint Committee in January, voted to endorse this bill.

The legislative machinery was choked down by abnormal conditions. The legal adviser of the association who wrote the bill was superseded by another to oppose it.

Such is the disconcerted action growing out of disorganized effort, for which no one here is to blame. As stated above, the fault lies with the

organization work of the entire profession, and the facts are cited to correct methods for future efforts. Wisdom comes from experience, and we are growing wiser.

Medical legislation is best secured by neighborly talks with local law makers on chance occasions. They are to be informed that the medical and sanitary interests of the people are identical with the principles of medical organization. Medical practice laws are in the interests of the public. Licensed physicians have the escutcheon of the state. They are best fitted to outline public policy in matters of public health. Their rank imposes this as an obligation and a duty. These and kindred thoughts placed intelligently before the legislator paves the way to medical legislation. This is the duty of the Auxiliaryman in every county by personal and organized effort. In large communities it may be expedient to organize outside influences to assist.

Another potent means of securing legislation is the proper and forceful presentation of arguments before legislative committees to which bills have been referred. Addresses limited to a few minutes must be directed in such a way as to afford facts concerning the measure under discussion. Tautological discourses or exhibitions of erudition, garnished with therapeutic nihilism, or with a concession bouquet thrown to the opposition, secure nothing but defeat. A good bill well understood and well presented, shown to be in the interest of the public, free from "sleepers" and selfish motives, will always receive favorable attention.

All physicians claim to belong to the medical profession and enjoy its distinction and advantages, but not all know the difference between medical organization and the medical profession. All enjoy the fruitage of the profession; but few work in the fields of organization upon which the worth and integrity of the profession depend. The quack speaks of his relation to the profession, but hates medical organization like poison. Many good physicians never contribute an effort or a dollar to the end of medical organization; as members of the organized profession they are dead. As practitioners they are kept alive by virtue of the organization efforts and self sacrificing devotion of aggressive men in the profession.

CURRENT MEDICAL LITERATURE

In Charge of J. E. TUCKERMAN, M. D.

ENUCLEATION OF EYEBALL UNDER LOCAL ANESTHESIA.

Robin (New Orleans Med. and Surg. Jour., Dec., 1907, p. 454), reports the following method used successfully in thirty-four cases. The mixture used was 10 gtt. 4% sol. of cocain, 10 gtt. adrenalin chloride sol. (1-1000), and 20 gtt. normal saline; using altogether 2.5 gr. of cocaine. Ten drops of this mixture are injected, by hypodermic, "along each rectus muscle, deeply, behind the equator of the eye, and after five minutes" the operation can be performed as is usual. This method, though "thoroughly practicable, is not entirely devoid of pain," which may be complained of during the cutting of the optic and ciliary nerves. The "dividing of the conjunctiva and tendons is particularly free from pain" and if an additional ten drops of the mixture is injected "deeply around the optic nerve, about a minute before severing it," the pain is practically nil. The advantages of this method are self-evident; it avoids general anesthesia; precludes the mistake of taking out wrong eye; and is more readily consented to by the patient.

TUBERCULOUS OSTEITIS OF THE TIBIA TREATED BY IODINE AND CREOSOTE.

Woodbury (U. S. Army) writing from the Philippines illustrates the treatment by a case (Ther. Gazette, Jan. 15, 1908, p. 76). The patient was entirely disabled, having five sinuses, between the knee and ankle, leading to diseased bone. There were no sequestra. "Immediately after admission, the sinuses, which ran from every direction into the tibia, were freely opened and flooded with normal salt solution. No curetting was done, except with the finger during the irrigation. He was given internally ten drops of the compound tincture of iodine, well diluted with hot water, three times daily before meals, and he was put on the regular hospital fare for a station in the field. Locally an irrigation with Lugol's solution in normal salt solution (three percent) was ordered to be given daily. This was followed by an injection into the sinuses of a mixture of creosote and cottonseed oil, and this was also applied on the dressings. The strength of the creosote mixture was at first one in two hundred, which was injected every day

for a week, then the intervals were increased and also the strength, until he received an emulsion of one in sixty, given once a week. No splint or cast was applied; but he was encouraged to frequently move the affected joints. At the end of six weeks he left the hospital, walking with a cane. He subsequently returned for dressings once a week for about a month, when he sent word that he was so busy planting rice and hemp that he could not very well come any more, and hoped I would excuse him. At the last reports he was still well and busy, and has had no more trouble with his leg, which I presume has entirely healed. Incidentally I might mention that one of the results of his stay in the hospital was that he gained while under treatment about thirty pounds in weight. When last seen he had no signs whatever of tuberculosis."

THE ACTION OF OIL ON GASTRIC ACIDITY AND MOTILITY.

Clinical experience has taught us that oils are tolerated differently by the same individual according as their administration precedes, is coincident with, or follows a meal. Cowie and Munson (The Archives of Internal Medicine, Jan. 15, 1908, p. 61) report extensive experiments which place this varying action of oils on a rational basis. Oil is found to depress the secretion of the stomach mechanically by coating the food and the stomach wall, and reflexly, but slower than other foods act, by an action on the central nervous system which is greater, the greater the amount of oil given and the longer time allowed for its action. Oil given with a meal decreases the acidity and retards the stomach's emptying. When oil precedes the meal, secretion of hydrochloric acid is delayed, but unchanged if it follows the meal. The height of digestion is delayed whether oil is given before or after the meal. The action of oil on the stomach functions is only temporary, acting only for the time when given. Therapeutically oil is preferable to other means of controlling acidity because of its food value. In hyperchlorhydria it should precede the meal. In hypochlorhydria it should follow. In stasis and slow evacuation it should not be given, while in hypermotility it may be given before, during, or immediately after the meal.

TENDERNESS OF THE RIGHT LUMBAR GANGLIA; A DIFFERENTIAL AID IN APPENDICEAL DIAGNOSIS.

Morris (J. A. M. A., Jan. 23, 1908, p. 278), finds the lumbar ganglia situated one and a half inches from the umbilicus of diagnostic value, as follows: When acute inflammation has subsided leaving mucous inclusion or scar tissue, or when normal involution processes produce digestive disturbances and local neuralgias, or when the appendix is congested without an infection (as may occur in the presence of a loose kidney), then, though (McBurney's point) the appendix may show no tenderness, the *right* lumbar ganglia being tender will disclose the difficulty. If, however, *both left and right* ganglia are tender then there is trouble in the pelvis. If neither right nor left ganglia are tender, trouble which is present is above the pelvis and appendix.

THE TREATMENT OF CHANCROIDAL BUBO.

Morton (Med. Record, Jan. 25, 1908, p. 138), states that bubo occurs in 30-50% of all cases of chancroid. A frequent cause of their formation is an attempt to destroy the specific character of the chancroid by cauterizing it with silver nitrate, which only serves to crust it over, as the action of the nitrate is very superficial. It was formerly supposed that, if a bubo could be seen in the early stages before suppuration had begun, the glands might be dissected out, the wound closed by suture, and healing by primary union obtained. This has proven a failure, as the wound is almost always infected and breaks down, leaving a gaping cavity which usually takes from four to eight weeks to heal by granulation. Occasionally a bubo will be met with which does not soften under hot applications, and these, of course, must be excised and curetted out, but they are largely in the minority.

The treatment which Morton uses was suggested by a visit to the Charité in Berlin, summer before last, and since then he has used it in the Long Island College Hospital and the Kings County Hospital with most gratifying results.

"When a bubo first appears, an attempt should always be made to prevent suppuration by putting the patient to bed. The ice bag is no longer used because it has been found that resolution will take place just as well with warm applications. Injection into the substance of the gland of antiseptic solutions, such as nitrate of silver,

carbolic acid, and bichloride of mercury, has also been abandoned as useless.

"A common method in the Charité in Berlin is to cover the bubo with gauze, wet with 95% alcohol, covered with cotton wadding and perforated gutta percha tissue to prevent too rapid evaporation. The alcohol is renewed twice a day as it evaporates. Another method in common use is fomentation with solution of acetate of ammonia used warm and frequently renewed. Tincture of iodine has little or no value as an absorbent.

"After fluctuation has begun the warm applications should be changed for hot ones, to encourage rapid breaking down of the glands.

"The thermolyte bags are useful, as they can be used with the hot fomentations and serve to retain the heat for a long time.

"After the bubo is thoroughly broken down and full of pus, a small incision is made with a double-edged knife and the pus evacuated. A 10% iodoform-glycerin emulsion is then injected into the wound. The injection is made three times at the first sitting, the first two injections being allowed to run out and the last one retained. The wound is then bandaged over night with fomentations of solution of the acetate of ammonium.

"On the following day the bubo is emptied by squeezing out and the injection is again made three times, the two first injections running out and the last one remaining in. The wound is then bandaged and left undisturbed for five or six days. At the end of that time, in the great majority of cases the bubo is healed and the patient requires no further treatment."

BOOK REVIEWS.

(Continued from page 233.)

While true that very few drugs will cure any disease, it is also true that by encouraging elimination, neutralizing over acidities, combating toxins, raising or lowering blood pressure, and in various ways stimulating or retarding vital processes, all of which may be accomplished medicinally, the course of disease may be favorably influenced and the *vis medicatrix naturae* assisted and recovery hastened.

Therefore if this volume, in laying so much stress on medicinal treatment, will draw more attention to this neglected field, encourage the study of such or similar preparations, it will accomplish a great and very important work.

COUNTY SOCIETIES

FIRST DISTRICT

Cincinnati Academy of Medicine at its meeting, March 16, 1908, listened to a paper by Magnus A. Tate on "The Fetal Heart," who discussed the subject in all its bearings, giving especial attention to the history of the discovery first in 1818 of this organ through auscultation. He further discussed the determination of the sex by means of the rapidity of the pulsation and made the conservative statement that one could determine the sex by this means in fifty per cent. of the cases.

S. C. Ayres read on the subject of "Cheap Hammers" in connection with injuries to the eyes. He described the making of hammers. One method, which was cheaper than the old fashioned way of tempering the hammer by plunging it in the water, was by means of the use of cyanide of potassium. This caused the hardening of a thin coating over the hammer of about a thirty-second of an inch which was very hard and brittle, and being harder than the underneath metal was subject to chipping and splintering. These pieces go into the eyes of the workmen and cause much trouble. It were better for the employees and the employed did they have more expensive hammers, chisels and drills to work with. Mr. Shipley of the Lodge & Shipley Tool Works was present, and spoke on the subject. One of his workmen was present and was shown as a patient with a piece of steel in his eye.

The Butler County Medical Society held its regular monthly meeting on March 12, 1908, at Hamilton. The paper on "Modern Medical Ethics," by H. M. Moore, of Oxford, was declared by all who heard it to be of unusual interest. It was discussed by Brooks F. Beebe and Edward Ricketts, of Cincinnati; Mark Millikin and Dan Millikin, of Hamilton, and H. M. Moore, of Oxford.

The paper of J. F. Trump of Hamilton, on "The Pharyngeal Tonsil," showed great thoroughness of preparation and gave much credit to the author. It was discussed by Dan Millikin, W. D. Hancock and Mark Millikin of Hamilton, and Edward Ricketts and B. F. Beebe of Cincinnati. Closed by Dr. Trump.

Brown County Medical Society met Wednesday, February 19, 1908. Program was as follows:

1:15, Social Greetings; 1:30, "Minutes, Election of Officers for Ensuing Year;" 2:00, Paper—"The Relation of the Medical Professor to the Administration of Justice," Judge G. Bambach; Discussion—The discussion extended in its scope to the subject of the desirability of a State hospital for inebriates; 2:45, "Case Report," A. Gilfillen, Russellville; Paper, George P. Tyler, Ripley.

SECOND DISTRICT

The Montgomery County Medical Society met February 7th, 1908. "Rachitis" was the subject of a very interesting paper by C. L. Patterson of Dayton. Dr. Patterson said in part:

Breast fed babies as a rule escape the disease, if the mother's milk is of the proper nutritional value. Every tissue of the body is affected. Bones, muscles, nerves, mucous membranes all share in the general poverty due to lack of proper nourishment.

Symptoms.—Sweating of head, restlessness at night, obstinate constipation, enlarged abdomen, delayed dentition and enlarged joints, are a few of the early symptoms noted. Later may follow change in head, chronic bronchial catarrh and attacks of laryngismus stridulus.

Treatment.—Results of treatment are always encouraging, if nutritional errors can be corrected and proper food administered. Few drugs outside of iron and phosphate are of any value.

The first object to be attained in the treatment of "Rachitis" is to place the child in proper hygienic surroundings. Light, air and cleanliness are of the first importance. After these it is simply a question of adjusting the diet to the needs of the child. Every case should be law unto itself, for it is not so much the kind or quantity of food taken as the amount that is digested and assimilated.

Cod liver oil may be given more as a food than a medicine.

Deformities of spine and long bones are best corrected by massage and rest in bed. Braces and operation should be deferred until after the third year.

The Darke County Medical Society met Thursday, March 12th. R. B. Hall of Cincinnati read a very interesting paper on "Early Diag-

nosis of Cancer of the Uterus." He emphasized the importance of the general practitioner insisting on and not neglecting to make a careful examination of all women either single or married who apply for treatment of some vaginal or uterine disease after they had passed the age of 37. He believed if more care was given to these cases that more women would get benefit of the surgical treatment necessary to give them a longer lease of life or eradicate the disease entirely: Because surgery early in the case offered the only means of permanent relief. It naturally follows then, that palliative measures are all that is left in the cases too far advanced for surgery. The paper was discussed by L. C. Anderson and A. W. Rush. J. B. Ballinger of Bradford then read a paper "The Alimentary Canal, as a Factor in the Genesis of Various Chronic Diseases, Lithemia, Neurasthenia, etc." He said in part: "Soon after birth the digestive tract becomes infected with various bacteria and ever after remains an infected channel. Additional and special infections sometimes take place at different periods of life, producing specific diseases, such as enterocolitis, dysentery and typhoid fever. In many of these cases of infection recovery of the bowel never completely takes place, but a chronic colitis continues often throughout the life of the individual. Constipation of various degrees is the consequence, and therefore is pathological. In a bowel whose decomposable contents are rendered stagnant, bacteria must produce fermentations and putrefactions. The results of such decomposition is the production of various toxic substances and organic acids. The absorption of these decomposition products causes, no doubt, most of the symptoms and diseases which are variously called rheumatism, gout, hysteria, neurasthenia. He concludes the paper by saying that the surgeon suggests the rational treatment of these cases when he secures and maintains efficient drainage. Therefore clear out the bowel and keep it clean. This is best accomplished by the salines. Diet is not less important and must be prescribed to meet the needs of the case and the habits of the patient."

Following the reading of the paper it was ably discussed by Drs. Husted, Fitzgerald and Metcalf.

Dr. Metcalf then reported the cure of a case of enuresis, by correcting a mixed astigmatism in a boy aged 8. Dr. Baker reported early menstruation in a girl aged 9.

Rufus B. Hall reported having done a gastro-

enterostomy on a babe three weeks old for congenital pyloric stenosis, result death.

J. E. Monger reported case of child eighteen months old with depressed fracture of frontal bone done by an ax in the hands of its demented father. Operation raising of fragments, etc., result, recovery.

H. G. Thomas was elected to membership. A motion prevailed authorizing the secretary to request the physicians of Greenville to close their offices from 1 to 3 p. m. on the day of the meeting of the society and to have a notice placed in the daily papers to that effect. W. A. Jones of Arcanum was elected to fill the vacancy of Auxiliary Committeeman caused by the resignation of Phillip Dickes.

The Montgomery County Medical Society met March 6. The following symposium on tuberculosis was held:

"The Tubercle Bacillus; Its Habitat, Physical Characteristics and Methods of Staining; Modes of Infection, Etc." E. S. Everhard. Dr. Everhard said in part: "The bacillus tuberculosis, discovered by Koch in 1882, is a bent rod, occurring singly or in groups. Glycerine is essential in an artificial medium. It is probably utilized by the germ to form fat.

The modes of invasion are three: By inhalation; by ingestion, and by inoculation.

Koch thinks that bovine and human tubercle bacilli are not the same and that the only source of infection is human sputum. While Von Behring and others believe man to be susceptible to the bovine type; that it is taken in with meat or milk; and may or may not become latent.

The conditions influencing infection are: any condition causing such posture as will contract the chest and prevent lung expansion. In this class all myopia and certain occupations; anything which increases the resistance of the individual such as chronic anemia, dissipation, lack of sleep, proper food, sunshine or fresh air, excessive expenditure of nerve energy; any influence increasing the opportunities for exposure, among these are crowding together tubercular patients with non-tubercular individuals, failure to care for sputum, failure to disinfect by sunlight and to ventilate.

"Incipient Tuberculosis; Systematic Conditions Favoring Tuberculosis, Pretubercular or Prodromal Symptoms, Etc." A. O. Peters.

Tuberculosis is an infectious, contagious disease. Predisposition plays little part in its development, except that certain factors, as hered-

ity, anemia, etc., may render the system more susceptible to the infection.

In more than 95 per cent. of cases the disease can be diagnosed clinically while still in the incipient stage. The diagnosis should be based upon the family history, the history of the case, and the physical signs. Since the bacilli do not appear in the sputum until the prognosis has become doubtful or hopeless, the microscope is of little use for diagnosis. When the disease is recognized in its incipient stage, nearly all cases are curable.

"Advanced Tuberculosis, Symptoms, Etc.," E. B. Markey. Dr. Markey said in part that the majority of cases are unrecognized until later stages. In light of modern methods of diagnosis there is little excuse for this and the profession deserves criticism.

Rule to guide the general practitioner in classifying cases: A case should be considered as having passed from the incipient to the advanced stage when there is evidence of either consolidation or breaking down of lung tissue.

Signs of consolidation resemble those of lobar pneumonia.

Signs of cavity may be obscured when filled with the exudate. Let the patient cough during auscultation.

Complications.—Gastric disturbances often due to drugs. Most painful complications are tubercular laryngitis and peritonitis.

"Treatment of Tuberculosis," George P. Dale.

At the meeting of the Montgomery County Medical Society, at Dayton, Ohio, on February 7, the paper on "Post-operative Conditions," read by J. B. Sampson, was limited to the discussion of pain, vomiting, thirst, gastric dilatation, intestinal paresis and ileus, three simple and three grave post-operative complications.

In brief, of the milder grade of post-operative pain, back pain is the most common and distressing, due to the prolonged obliteration of the natural curves of the spinal column from faulty table position. It can be almost entirely obviated by correcting this position. The severe grade of pain is due to mechanical constriction of nerve tissue and post-operative hyperemic wound pressure. Every effort is first made to relieve by change of position, bandages, etc., before administering an anodyne. The dosage and manner of administration is governed by the nature of the operation and a personal knowledge of the patient's condition.

Vomiting, mistaken by the specialist as an essential sequel of anesthesia, possibly due to

drug idiosyncrasy, has been more correctly interpreted by close observation as a symptom due to pathological changes. The most potent factor in the production of vomiting is simple drug poisoning, indicative of pulmonary and alimentary absorption of lethal doses of chloroform or ether. Treatment, prophylactic and active. The milder cases can almost be entirely obviated by conditioning the patient and the eliminative organs, with the restriction of the length of administration of anesthesia and avoiding excessive dosing of your patient. Cases due to slight irritation from local and inflammatory conditions often yield to stomach flushing with warm alkaline fluids, supplemented by a small hypodermic injection of codeine phosphate.

Aggravated cases due to a severe systemic poisoning must be met with measures that reduce gastric and intestinal irritation and stimulate the eliminative organs. Hot abdominal packing, with gastric lavage, usually suffices for the former condition, while rectal injections, with hot normal salt solution, not only replenish the body fluids, but have a decided stimulating action on the kidneys. Cases which start in late and become persistent usually foretell the occurrence of more serious complications, the treatment of which must necessarily be governed by underlying conditions.

Post-operative thirst is a condition of everyday observation. Excessive thirst in operative cases is a symptom, a demand of nature to replenish a depleted condition of the body fluids. Deplete a system with free purgation, deplete a system with copious diaphoresis and hemorrhage during operation, and deprive the system of water from six to twelve hours afterwards, the logical cause of post-operative thirst becomes apparent to all. While small deficiencies of the body fluids are readily met by appropriations from the tissues and a compensatory constriction of the vasomotor system, such systemic depletion as we often witness is not based on sound physiological judgment. Insult is added to injury by saturating the body with narcotic drugs, elimination of which can only be carried out through the medium of the body fluids, a concentration and insufficiency of which must not only prove a serious handicap in performing this important work, but to this concentration of the body fluids in combination with poisonous amounts of chloroform or ether we find an explanation for the serious pathological changes that often follow the use of these drugs. If these degenerative lesions are not extensive, recovery takes place, health is apparently regained, while the essential

organs perform their work through a compensatory effort, the damage is never fully repaired. These patients are prone to develop the sclerotic changes which belong to a more advanced age, and later fall the easy victims of the acute terminal infections. The treatment of post-operative thirst is both prophylactic and active. The former is accomplished by early catharsis and replenishing the system with water previous to operation. If this be impossible from emergency, a subcutaneous infusion or a rectal injection of warm salt solution should be given before the patient leaves the operating table and repeated every four hours if necessary.

The more serious post-operative complications—gastric dilatation, intestinal paresis and ileus—were taken up separately, and the etiology, pathology, diagnosis and treatment thoroughly discussed.

Annual program of the Darke County Medical Society for 1908 is as follows:

Thursday, February 13.—Address, C. L. Bonifield, Cincinnati, Ohio; "Traumatic Neuroses," Brooks F. Beebe, Cincinnati, Ohio.

Thursday, March 12.—"Early Diagnosis of Cancer of Uterus," Rufus B. Hall, Cincinnati, Ohio; "The Alimentary Canal as a factor in the Genesis of various allied chronic diseases, such as Lithemia, Neurasthenia, Etc.," J. B. Ballinger, Bradford, Ohio.

Thursday, April 9.—"Some Considerations of Non-Tubercular Affections of Sacro Iliac Joint," Robert Carothers, Cincinnati; "The Passive Hyperaemic Method of Bier as a Therapeutic Agent," J. O. Starr, Pittsburg, Ohio.

Thursday, May 14.—Joint meeting with Miami County Medical Society, at Bradford, Ohio, in Y. M. C. A. Building. "Hygienic Treatment of Tuberculosis," Robert N. Shannon, Piqua, Ohio; "Chronic Appendicitis," W. C. Gutermuth, Versailles, Ohio.

Thursday, June 11.—Annual picnic at Ryan's Grove.

Thursday, July 9.—"Typhoid Fever," Charles Baker, Palestine, Ohio; discussion, J. C. Poling, Ansonia, Ohio, and M. M. Corwin, Savona, Ohio.

Thursday, August 13.—Indiana Day. The Randolph County (Indiana) Medical Society to be the guest of this society. Morning session, 10:30 o'clock: "Some Excesses in Surgical Cleanliness," Maynard Austin, Anderson, Ind. Dinner at 12 o'clock. After dinner talks by G. Rynard, M. A. Austin, Jno. C. Sexton, C. A. L. Reed and others. Afternoon session, 2 o'clock: "Importance of Exploratory Operation in Some Ob-

scure Diseases of the Stomach," C. A. L. Reed, Cincinnati, Ohio; address, John C. Sexton, Rushville, Ind.

Thursday, September 10.—"Placenta Praevia," J. D. Hartzell, North Star, Ohio; discussion, S. A. Hawes and A. W. Rush, Greenville, Ohio.

Thursday, October 8.—"Hydrotherapy," Otto Juettner, Cincinnati; discussion.

Thursday, November 12.—Joint meeting with ladies' literary clubs of Greenville. "Home Nursing," Miss Olive Fisher, chief nurses' training department, Cincinnati Hospital, Cincinnati; address, Dan Millikin, Hamilton, Ohio.

At the March meeting of the Green County Medical Society H. O. Whittaker gave a description of the "Anatomy of the Gall Bladder and its Appendages" and Samuel S. Wilson read a paper on the "Surgery" of the same. Dr. Wilson called attention to the important fact, that it is not gall stones primarily that we have to deal with in diseases of this region, but an infection, acute or chronic which cannot be reached by internal medicine and which when it has reached a certain point of severity must be dealt with surgically. He predicted that the time would soon come when temporizing would be done with in this region as it has been in the region of the appendix.

The Montgomery County Medical Society met Friday evening, March 20. The program for the special meeting was as follows: "Tuberculosis of Serous Membranes (Pleura, Pericardium and Peritoneum)," W. A. Ewing; "Tuberculosis of Bones and Joints," F. C. Gray; "Tuberculosis of Lymphatic System," L. G. Bowers; "Our Duty on Tuberculosis Problem," J. S. Beck.

At the March meeting held by the Champaign County Medical Society. David O'Brien read a paper upon "Pneumonia." The paper was accompanied by an exhibit of pathological specimens.

THIRD DISTRICT

The Hancock County Medical Society met March 6 and was called to order by the president, N. L. McLachlan. The following papers were read: "Opsonins," J. M. Firmin; "Croup," A. J. Reycraft. Dr. Reycraft defined croup, gave the etiology of both diphtheria and non-diphtheritic varieties and gave the pathology at all stages and the symptoms. It might be mistaken for acute laryngitis, laryngismus stridulus or for edema of glottis. Prognosis of true croup very unfavorable; the younger the patient the more

fatal. Treatment divided into prophylactic, hygienic, constitutional and local. Calomel emetics, hot baths with compresses to throat, careful handling of all secretions and use of anti-toxins.

The treatment brought out a lively discussion, which was carried out by Drs. Tritch, Firmin, Kimmel, Entrikin, Saunders, Hartman, McLachlan and Reycraft. Large doses of calomel (20 grains) being favored by some, and from 6000 to 9000 units of anti-toxin. Others thought one-tenth grain doses of calomel were best and favored not more than 2000 or 3000 units of anti-toxin for initial dose. Calcidin was highly spoken of, as was the old remedy of burned sponge and lime. One doctor had results by tickling fauces of an almost dead child with a feather.

The following applicants were received and elected to membership: E. Sheldon, J. W. H. Beach, J. L. Higbee, C. D. Todd, E. B. Taylor, R. D. Whistler, W. W. Drake and W. N. Yost.

The Allen County Medical Society held a meeting March 3. Several cases of interest were reported.

At the meeting of March 17 the following program was carried out: "Vaginal Hysterectomy," T. R. Terwilleger; discussed by Drs. Steiner, Burton, Huntley and Terwilleger.

A joint meeting will be held with the Hancock County Medical Society on April 14 at Bluffton.

FOURTH DISTRICT

The Paulding County Medical Society met at Paulding March 11. L. R. Fast demonstrated a case of unresolved pneumonia, resulting in fibrous contraction of the lung and the falling in of the chest wall. Dr. Fast gave the clinical history of the case.

Louis A. Levison, of Toledo, was the guest of the society and spoke upon "Tuberculin in Diagnosis and Therapy." He first described the discovery of the tubercle bacillus by Koch and the appearance of the original tuberculin nine years after. This tuberculin is now called the "old" tuberculin of Koch, to distinguish it from the great number which have since appeared. The method of formation of this tuberculin was described. The methods of administration were also described. Although various observers give different dosages, Levison has been accustomed to give a initial dose of 0.001, and if this produces no reaction to give in a few days 0.005, following this with a third injection if necessary of 0.010. Most observers believe that if the patient does not react to the last named dose he can be considered free from tuberculosis.

The reaction consists in a rise of temperature where it had been normal before. No rise of less than 1.5° should be considered positive. With the rise in temperature the patient may have pains in the head, back, limbs, malaise and symptoms of an acute intoxication. The physical signs in the lungs may undergo changes. Also to be considered is the evidence of local irritation at the site of needle puncture.

The reaction is for all practical purposes specific for tuberculosis. The other conditions in which it has been reported positive may be disregarded. The ophthalmic tuberculin reaction of Calmette was described. Its methods of administration, reaction and results were given in detail.

Passing to tuberculin therapy, Levison mentioned the revival in the use of tuberculin in the past few years.

Many different preparations are used for therapeutic preparations. The old tuberculin of Koch is not used for this purpose any more. Koch's new tuberculin, Deny's, the Bacillen emulsion, the tuberculin of Von Ruck or Maragliano and many others have been used. Tuberculin is only to be used in selected cases. Patients who have secondary infections, with organisms of influenza, pneumonia, streptococci, are not good subjects. It must be in combination with proper food, hygienic surroundings and methods of living.

The methods of dosage were described in detail and cannot be abstracted here.

J. H. Jacobson, Councilor for the Fourth District, was present and read a paper upon "Empyema." After giving a brief historical review of the condition, the various varieties were described. It may occur as a sequence to acute sero-fibrinous pleurisy. Empyema may be secondary to various infectious diseases; may also be present from local causes, injuries, malignant diseases, etc.

The bacteriology is important. Tubercle bacilli, pneumococci are the most common organisms found.

The pathology of the condition is usually typical. The pleural membranes are thickened, and the pleural cavity contains a greater or lesser amount of pus. The condition may produce no pulmonary symptoms at all or it may begin abruptly. The physical signs were described by Dr. Jacobson in full. He emphasized the importance of Grocco's sign as a diagnostic aid. The treatment was described in detail. Drainage in some way is the best treatment, and the opening should be sufficiently large and free. Aspira-

tion with suction bulbs may be used after drainage.

The discussions of the above papers were participated in by Drs. Fast, Cunningham, Courtwright and others.

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met February 29. Homer H. Heath read a paper upon "The Surgical Physiology of the Vascular System."

He said that anatomically the vascular system consists of heart, arteries, arterioles, capillaries and venules, all being hollow, elastic tubes. Considered physiologically, there is added a vaso-motor system. This consists of a nerve center and efferent nerves, whose function is either to contract or dilate the arterioles. The vaso-motor center has been localized by Ludwig and Dittman in the medulla. This center is normally rather unstable, but is in continuous state of tonic activity, as evidenced by the dilatation of the skin vessels produced by psychic stimulation or their contraction from other stimuli. The center can be stimulated reflexly or through altered metabolic conditions of the blood.

Dr. Heath gave much experimental evidence to show the autotonicity of the vaso-motor center. He showed how a heightened pressure in one part of the body is followed by a dilatation of the vessels in another region. Normal blood pressure is dependent upon the integrity of the center and the conducting paths and peripheral nerves. The vaso-motor center is susceptible to efferent impulses, which, if of sufficient force or length, may functionally impair its integrity, resulting in the constrictor function and fall in blood pressure. If to this impaired function is added a disturbance of metabolism, the vaso-motor fatigue reaches a state of exhaustion or inertia, characterized by a low general blood pressure, with no attempt to re-establish its normal function. This may be defined as a vaso-motor vicious circle.

The heart is a highly developed, unstriped muscle, having the physiological characteristic of rhythmic contractions. The rate of contraction is controlled by two sets of nerves—cardio accelerators and cardio inhibitors, whose centers are in a state of tonic activity, reacting to sensory and psychic stimulation, similar to the vaso-motor centers. The rapidity of the heart beats is dependent upon sensory or afferent impulses, producing cardio inhibition. The physiological reaction of the heart to reflex stimuli is similar to the reaction of the vaso-motor system. The rate is changed, and a rise or fall in the blood

pressure occurs. The heart rate may also be influenced by metabolic conditions. When the contractions are rapid, the catabolism is increased, aortic pressure is reduced, likewise the coronary circulation; hence an altered metabolism.

The heart, physiologically, either does or does not react to stimulation, be that of any character or strength; hence functional impairment and later breakdown as characterized by the rapid increase of pulse rate produces a condition in which the heart "runs wild," with no attempt at restoration of normal function. The experimental work of the Crile laboratory was considered. Anesthesia produces a gradual decline in pressure and a fall in body temperature. Operations upon the abdominal cavity or upon the brain produce a fall in pressure, dependent upon the character and duration of certain manipulations such as sponging, pressure or traction of the various tissues. In all experiments there would be a fall in temperature closely allied to the fall in blood pressure. This would indicate that the loss of heat was due to peripheral dilatation, and conversely, if by artificial means temperature be maintained, it would require a longer period of time and a greater amount of traumatism to reduce the blood pressure. From a surgical standpoint these characteristics of the vaso-motor center and the heart are of the highest importance, for in the pursuit of the surgeon's vocation sensitive structures are traumatized, which results in impaired circulatory or vaso-motor function. In subjecting a patient to operative procedures, artificial means should be employed to maintain body temperature, and the least possible damage to the tissues should be inflicted.

Dr. Heath demonstrated a great number of lantern slides showing pressure curves under many conditions in various experiments and clinical observations. In the discussion N. W. Brown spoke upon various medicinal agents in their relation to blood pressure. L. G. Grosh discussed hemolysis. He reviewed the history of this phenomena and gave its present status.

J. H. Jacobson, spoke upon the technic of blood transfusion. The history of transfusion was briefly sketched. The technic as popularized by Crile was given.

Carrel was the first to hold that for blood vessel suture to be successful, serosa must be sewed to serosa, etc. By bringing intima to intima, without the intervention of any foreign substance, the danger of closing is greatly decreased. The technic of Carrel is the standard

or classical technic for a permanent end to end blood vessel anastomosis. For temporary anastomoses a simpler method was needed. Dr. Jacobson gave a description of the method, the arrangement of the donor and receiver and the anesthesia. The latter consists of a one-tenth per cent. cocaine solution with a few drops of adrenalin added. This solution is used by the infiltration method after Schleich. The blood pressure of the receiver, the pulse of the donor and the pallor of each is to be frequently noted. The duration of the transfusion and one to two hours may elapse before appreciable changes are noted. As yet there is no positive means of determining the exact quantity of blood which is transfused. At the completion of the transfusion the artery and vein are ligated with catgut and the wound closed in the usual manner.

Peter Donnelly spoke upon "The Indications for the Administration of Salt Solution." It has been his experience that nearly all patients do better and are very much more comfortable following operation when they have been given salt solution for the twenty-four hours prior to operation. After operations, irrespective of the kind, saline solutions are resorted to, and occasionally adrenalin is added.

Dr. Donnelly has found that owing to relaxation of the sphincter following operation about 40 per cent. of the cases are not able to retain the solution in the rectum. He described his technique.

A number of cases were reported showing good results of saline injections.

Discussion of the above papers was participated in by Dr. Murbach, of Archbold, William Dickey and others.

A general meeting of the Academy of Medicine of Toledo and Lucas County was held March 6. E. L. Shurly, of Detroit, was the guest of the society and spoke upon "Chronic Laryngitis." He defined the condition as a chronic inflammation of the mucous membranes and submucous tissues of the larynx, accompanied by congestion of an increase in the tissues.

A number of varieties of chronic laryngitis was differentiated. In the diffuse hypertrophic form there is a diffuse infiltration evenly distributed throughout the larynx. It may follow recurring attacks of acute laryngitis. It may follow mouth breathing, residence in cold, damp climates, be associated with asthma, emphysema, chronic bronchitis or tuberculosis, cardiac disease, hepatic disease, dust occupations, public speakers, etc.

The symptoms show changes in the voice and frequent attempts to clear the throat, expectoration of a scanty, thick, tenacious mucus may be present. Examination shows the mucous membrane red, swollen and congested with deposits of secretion. The minute changes occurring in the vocal cords were described.

The prognosis depends upon the causative factor. The treatment should always be preceded by a search for the cause. The general or constitutional treatment was described. Local treatment consists in sprays, applications, etc. Change of climate or occupation may be advisable.

A second variety of laryngitis is the chronic subglottic form. This is characterized by infiltration of the tissues beneath the vocal cords.

The etiologic factors are similar to those previously described. Dyspnoea, voice impairment, cough, may all be present. Examination shows an encroachment upon the glottis by the presence of two oval masses, parallel to and below the vocal cords.

The prognosis is more grave than in diffuse hypertrophic laryngitis. Potassium iodide may be of service in the treatment. Local applications of caustics, silver nitrate, trichloroacetic acid have all been tried.

Another form of laryngitis is the chronic atrophic form. This is a chronic inflammation of the larynx, resulting in atrophy of the mucous membrane and of some of the submucous tissues. The process is usually associated with similar processes in the nose and pharynx.

The discussion was participated in by Drs. North, Snyder, Steinfeld, Alter and others.

The Pathological Section of the Academy of Medicine of Toledo and Lucas County met March 13. R. S. Walker reported a case of "Plastic Repair of the Urethra." B. W. Patrick and S. B. Eichberg reported a case and exhibited the specimen of "Hydatid Cyst of the Uterus."

W. A. Dickey read a paper on "The History of Influenza." The disease is both epidemic and endemic, and has swept over the world. He spoke of the methods of infection.

A. L. Steinfeld read a paper upon "The Etiology and Pathology of Influenza and Its Complications." The specific organism, the bacillus discovered by Pfeifer, was described in detail. Influenza and pseudo influenza were differentiated. The portal of entry in the majority of cases is the respiratory tract. There are only a few characteristic pathologic changes. A marked tendency to hemorrhages is present, due to vaso-

motor paresis. The nervous tissues have a marked affinity for the toxins. Dr. Steinfeld described in detail the pathologic conditions that may be present in the nose, ear, eye, skin, etc. One or 2 per cent. have nephritis. The lungs show more or less typical changes. Pneumonia or bronchitis may exist. The heart may be affected. Bradycardia occurs more often in influenza than in any other acute febrile disease. The complications on the part of the nervous system are numerous and severe. Peripheral neuritis, paralysis, psychoses, cerebral hemorrhages, may all occur.

O. Hasencamp read a paper upon "The Symptomatology, Diagnosis and Treatment of Influenza." Taking up the symptoms, Dr. Hasencamp said that there were few diseases showing so much depression and prolonged debility. The symptoms were described in full. The various forms of the disease were differentiated. Otitis media is a frequent complication.

The disease must be diagnosed from simple coryza and catarrh. Typhoid fever, tuberculosis, cerebro-spinal meningitis may be confused with influenza.

The prognosis is favorable, and the direct mortality is small, but complications increase the death rate.

Treatment is both preventive and curative. Quinine has some reputation as a preventive measure. There is no specific for the disease. Treatment is more or less symptomatic. The coal tar derivatives are of benefit in selected cases. For the catarrhal symptoms Dr. Hasencamp prescribes:

Ammon. muriat, 3 ii.
Syr. ipecac, 3 ii.
Ext. glyc. flu., 3 iv.
Mist. glyc. comp. gr. ad., 3 iv.
M. S. Teaspoonful every three hours.
Medicated steam inhalations are of value.

The above papers were discussed by Drs. Nellis, Tracy, Levison, Brown, Thorn and others.

The Williams County Medical Society held its second bi-monthly meeting for 1908 Thursday afternoon, March 12, at Montpelier. The program was as follows: "Toxemia of Pregnancy," R. R. Alwood, Montpelier; report of case, A. J. Back, Montpelier; "Influenza: Its Complications and Sequelæ," C. M. Barstow, Bryan; report of investigating committee, F. H. Pugh, chairman; report of committee on fee bill, W. L. Hogue, chairman.

FIFTH DISTRICT

The regular monthly meeting of the Lorain County Medical Society for March was held on the 10th at Lorain. Bert Garver read a paper on "Complete Double Cleft Palate and Harelip" and presented a case. He discussed the probable courses and the various operations for its correction.

Wm. Storey, of Castalia, presented a most interesting and valuable paper on his experience with the serum treatment of epidemic meningitis. A year ago there was an epidemic of meningitis in Castalia. Eighteen cases were observed.

Fifteen cases were treated with the Flexner serum, and all recovered. He said the serum was used strictly according to Dr. Flexner's directions, but he believed larger doses could be used. He also proposed washing out the cerebro spinal canal with normal saline solution before introducing the serum. "Treat the cavity with due regard to its peculiarities."

The paper was discussed by Drs. W. S. Baldwin, Monosmith, Cameron and Bert Garver.

W. S. Baldwin read a paper on "Infant Feeding." The proper modification of cow's milk for the infant was thoroughly considered.

SIXTH DISTRICT

The regular meeting of the Mahoning County Medical Society was held March 17 at the Elks' Club, with twenty-eight members present. R. D. Gibson reported on the progress of the Legislative Committee at Columbus. All bills pending of which we have received notice were unanimously approved by the society with the exception of House Bill No. 704. House Bill No. 879 and Senate Bill No. 452 were condemned. A motion was carried that the secretary be instructed to notify our Representatives of our wishes concerning the various bills. A motion was carried for the secretary to inform our Representatives that when any bills of interest to the medical profession comes up that he be notified. One new member was received into the society, and the applications of twenty-two men for membership were read. A committee was appointed to make arrangements for the meeting of the Sixth Councilor District, which is to take place in Youngstown in the near future.

H. A. Becker, of Cleveland, read a most interesting paper on "Diseases of the Gall Bladder." The discussion was full of good points. The meeting adjourned at 10 p. m., followed by a lunch, which was enjoyed by every one present.

The regular meeting of the Stark County Medical Society was held Tuesday, March 17, at 1 o'clock. The program was as follows: Lecture, "Mastoiditis," A. J. Hill, Canton; report of cases; "Sequelæ of Scarlatina," W. H. Becher, North Industry; "Neurasthenia," Arthur Thomas, Minerva; "Haematemesis," W. H. Weaver, Canton; "Hysteria," J. D. Holston, Massillon; "Tumor in the Uterus," J. F. Hudson, Canton.

The following are the officers for 1908: President, J. C. Temple, Alliance; corresponding secretary, F. W. Gavin, Canton; secretary-treasurer, G. F. Zinninger, Canton. An election was held of delegates to the Ohio State Medical Association.

SEVENTH DISTRICT

The regular monthly meeting of the Columbiana County Medical Society was held at East Liverpool March 9. J. J. Buchanan, of Pittsburg, read a paper on "Some Considerations of Stone in Ureter." X-ray pictures were made by R. H. Boggs, of Pittsburg, on which Dr. Buchanan's diagnoses were founded. Geo. P. Ikirt read a paper upon "Pneumonia and Its Complications." Several interesting clinical cases were presented.

Three new members were admitted to the society.

Motion was made and carried to oppose House Bill No. 879, by Hill, of Columbiana county; also as to House Bill No. 704 and Senate Bill No. 467 was ordered placed on the table. An emphatic protest was made against Senate Bill No. 411.

A. J. Adams, charged with practicing medicine without a license, was discharged.

The Monroe County Medical Society met on February 27. The meeting was called to order by J. W. Norris. Petitions were drafted and signed to our Representative and State Senator protesting against the enactment of House Bills Nos. 704 and 879 and Senate Bill No. 452 and asking for the support of House Bills Nos. 1127, 1112 and 405. All present signed the petitions.

EIGHTH DISTRICT

The one hundred and sixty-third regular monthly meeting of the Muskingum County Medical Society was held in the Board of Education rooms, Market House Block, Wednesday evening, March 11. The following was the program: "Gastro Intestinal Troubles," T. H. Infield; "Shall the Doctor Do His Own Dispensing?" J. R. Lyons; report of case, H. T. Sutton; report of board of censors.

The Guernsey County Medical Society had an unusually good meeting March 10, which Andrew Timberman, of Columbus, kindly attended and gave a very excellent address on "Ophthalmology for the General Practitioner." This was followed by a little smoker, and all left feeling that they had had more than their money's worth and with an increased feeling of good fellowship.

The society also took action on the legislative matters by appointing a committee consisting of F. J. Harrison, member of the Auxiliary Legislative Committee, and A. R. Cain, to prepare a petition and forward it to the State Committee. A digest of the bills before the Legislature is being sent to every doctor in the county, with a letter urging each one to write a personal letter to both the Representative and Senator. At a previous meeting the society passed a resolution condemning the practice of permitting newspapers to mention the names of physicians in connection with professional cases.

The officers for this year are as follows: President, T. H. Rowles, Cambridge; vice-president, Frank Bird, Lore City; secretary, Fred Lane, Cambridge; treasurer, A. B. Headley, Cambridge; censor, G. W. Hixson, Cambridge.

NINTH DISTRICT

The Gallia County Medical Society met in regular session in Gallipolis, February 5. A. T. Clarke of Vinton presided. Minutes of January meeting read and approved.

L. C. Bean reported an unusual condition of bone degeneration. Middle-aged male, tubercular or luetic history negative, previous personal history not significant; beginning about six months ago were migratory pains ranging through hips and down to right knee; some two months before operation pain localized in right hip, extending below trochanters, some swelling, tenderness and slight temperature, and at this time the usefulness of limb was lost. Examination of part revealed a solution of continuity of bone in upper third of femur. Exploratory incision revealed from two to three inches of the femur just below trochanters, totally degenerated and absent, hemorrhagic fluid and blood clots occupying its space; condition benign in appearance, no odor, few sequestra, profuse hemorrhage. Laboratory findings in case showed no evidences of malignancy, few staphylococci, abundant inflammatory cells and few giant cells. The condition warranted discussion and deserves further careful observation to prove its exact nature.

Letters were read by Secretary from C. A. L. Reed, urging an effort on part of County Medical Societies toward securing representative of Society as delegate to next Republican State Convention.

Letter was also read from Ninth District Councilor John E. Sylvester expressing regrets in his inability to be present at this meeting.

Secretary was instructed to send S. S. Jordan, at Chillicothe, a certificate showing good standing in Society while a resident of this county.

Dr. Eakin next reported in detail as to the fifteen bills considered at the meeting of Auxiliary Legislative Committee and House of Delegates in Columbus, January 22.

The Secretary was instructed to communicate with our State Senator and Representative, urging their favorable consideration in behalf of the medical bills, especially of those relating to pure food, venereal disease advertising, and county deputy health officer.

E. B. Morrison and S. P. Fetter were elected respectively as delegate and alternate to next annual meeting of Ohio State Medical Society. Jehu Eakin was re-elected unanimously as member of Auxiliary Legislative Committee.

L. F. Roush, President Ninth District Society, presented an interesting essay upon "Defective Kidney Excretion which May or May Not be Due to Inflammation." His observations were of significant interest, being the practical conclusions obtained after more than two score years of practice.

G. G. Kineon read an essay upon "Chronic Nephritis," outlining succinctly the prevalence, etiology, diagnostic characteristics and general treatment of the varieties of nephritis. The papers were generously discussed.

By motion, a vote of thanks was extended Dr. Roush.

Meeting adjourned to meet again first Wednesday in April.

The Pike County Medical Society met in regular session March 2. A very interesting and instructive talk on "Wounds and Their Treatment" was given by E. W. Cornet. A telegram of protest against S. B. No. 411 was sent to Francis Blake of Columbus. The next meeting will be held at Dr. Andre's office.

TENTH DISTRICT

Ross County Academy of Medicine met February 25. Program was as follows: "Our Relations to Patients of Other Physicians," J. B. Searce. Be thou as chaste as ice, as pure as

snow, thou shalt not escape calumny.—Shakespeare. "Charity Work," Edward Meggenhofen. For blessings ever wait on virtuous deeds; And though a late, a sure reward succeeds.—Congreve. "Dead-beats, Diagnosis and Treatment," F. T. Marr. This people honoureth me with their lips, But their heart is far from me.—Isa. 29-13. "Purchase of Supplies," G. E. Robbins.

With us there was a Doctour of Phisik.

Ful redy hadde he his apothecaries

To send him drogges and his letuaries,

For ech of them made other for to winne.

—Chaucer.

"Collections," J. W. Maxwell. If my promises can bring comfort, ye have them now a thousand-fold. By Allah! I will promise anything.—The Rubaiyat of Omar Khayam. "Needs and Expenditures," Secretary. The Items of Receipt grow surely small. The Items of Expense mount one by one.—Kipling. "Fees, Office Assistance, Telephone Service, Etc.," General discussion.

The Columbus Academy of Medicine held its regular session March 2.

Fred Fletcher showed a one and a half-inch Murphy button that had been passed on the twenty-seventh day. He had used it after resecting several inches of the descending colon and the greater part of the sigmoid flexure. He attributed the patient's recovery to (1) the short time spent in making the anastomosis; (2) the large lumen of the button; (3) to the silk strings which were attached to the button and drawn into the rectum; (4) the avoidance of Lambert sutures over the button, and (5) the envelopment of the site of anastomosis with a large piece of omentum.

Dr. Fletcher presented the skiagram of a case in which absorption had followed a fracture through the neck of the femur. The fracture was originally impacted, but had been broken up six weeks after the accident by osteopathic treatments. The picture was taken four months after the injury, when the limb was four inches shorter and useless.

Another skiagram was shown of a fracture through the surgical neck of the humerus, with a comminution of the head of the bone. The accident followed a fall. The X-rays showed an excellent position of the fragments. The fracture was being treated by means of a shoulder cap and internal angular splint.

A. L. Steinfeld was of the opinion that Dr. Fletcher's hip case was one of coxa vera, rather than interstitial absorption of the bone, stating

that an interstitial absorption of the bone was due to an infection, and that it never followed trauma.

Dr. Fletcher stated that the X-ray findings were in keeping with the physical signs, and that trauma as an exciting cause of the absorption was recognized by leading clinicians.

C. F. Bowen (who took the picture) said that an opinion concerning such a case should be given after an examination of the original plate, rather than the photograph. He had had no fewer than nine cases of interstitial absorption following bone trauma—fractures, etc.

E. A. Hamilton related the case of a boy, twelve years of age, whom he was treating for a separation of the lower humeral epiphysis. An external angular splint was used. He also presented an early ectopic pregnancy with evidence of a recent inflammatory involvement of the left tube.

C. A. Howell said that ectopic pregnancies very frequently went to operation before they were diagnosed, and that it was by no means an easy matter to make a correct diagnosis of a tubal gestation by the characteristic boggy feel, per vaginam.

Dr. Howell reported the case of a woman upon whom he had operated for a movable mass in the region of the left kidney. The tumor was the size of a normal kidney; had the appearance of a lipoma, and was removed without difficulty. The tumor was submitted to Dr. Coons for a pathological examination. He reported that the interior of the tumor contained a mass the size of a mulberry, having the physical and histological characteristics of a normal kidney. The patient recovered.

Earl Gilliam showed a chain of tuberculous cervical glands, the largest of which was the size of a hen's egg. The patient was a young girl, and the operation was made difficult owing to the chronicity of the trouble and the dissection necessary to free them from the carotid sheath.

C. F. Bowen presented two skiagrams (before and after operation) of a large hydronephrosis which contained numerous irregular-formed calculi. The patient was a young girl, and was operated upon by Dr. Baldwin.

Frank Warner presented a man who was under treatment for a double Colle's fracture. He showed skiagrams of the deformity before and after its reduction.

REGULAR PROGRAM.

"Treatment of Hemorrhoids," E. A. Hamilton. Discussion: Drs. Teachnor, Gilliam, Thomas,

Howell and Fletcher. "A Tendency," F. W. Blake. Discussion: William C. Davis.

The Ross County Academy of Medicine met February 11. Robert Carothers of Cincinnati was present and spoke on the following subject: "A Consideration of Some Points in the Differential Diagnosis of the So-Called Rheumatoid Diseases" (with X-ray slides). He classified the rheumatoid diseases as (1) Infections, (2) Atrophic, (3) Hypertrophic, and (5) Villous, giving a "knockout" blow to the old "uric acid" theory of the etiology of rheumatism. Therapeutic suggestions were unusually full and explicit.

The regular meeting of the Madison County Medical Society was held at the Court House in London, Friday, February 28. The Society had as their guests Charles Bonifield of Cincinnati, J. H. J. Upham of Columbus, and R. H. Grube of Xenia. R. H. Grube read a paper on "Enterocolitis" which was greatly appreciated. Drs. Bonifield and Upham both gave the Society talks on organization, which put new life in the Society, and every member was made to realize that the success of the Society depended on every member going to work and doing something. The Society passed resolutions to ask the member of the legislature from this county and the Senator from the district to vote favorable for House Bill No. 1127, referring to the advertising in public places of cures for venereal diseases, and to vote against Senate Bill No. 411, a bill regulating the practice of optometry.

NEWS NOTES

SMITHSONIAN INSTITUTION HODGKINS FUND PRIZE.

In October, 1891, Thomas George Hodgkins, Esquire, of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man." In furtherance of the donor's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications.

In connection with the approaching International Congress Tuberculosis, which will be held in Washington, September 21 to October 12, 1908, a prize of \$1,500 is offered for the best treatise "On the Relation of Atmospheric Air to Tuberculosis." Memoirs having relation to the cause, spread, prevention, or cure of tuberculosis

are included within the general terms of the subject.

Any memoir read before the International Congress on Tuberculosis, or sent to the Smithsonian Institution or to the Secretary-General of the Congress before its close, namely, October 12, 1908, will be considered in the competition.

The memoirs may be written in English, French, German, Spanish, or Italian. They should be submitted either in manuscript or type-written copy, or if in type, printed as manuscript. If written in German, they should be in Latin script. They will be examined and the prize awarded by a committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

Such memoirs must not have been published prior to the Congress. The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

No condition as to the length of the treatises is established, it being expected that the practical results of important investigations will be set forth as convincingly and tersely as the subject will permit.

The right is reserved to award no prize if in the judgment of the committee no contribution is offered of sufficient merit to warrant such action.

Memoirs designed for consideration should be addressed to either "The Smithsonian Institution, Washington, District of Columbia, U. S. A."; or to "Dr. John S. Fulton, Secretary-General of the International Congress on Tuberculosis, 714 Colorado Building, Washington, District of Columbia, U. S. A." Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,

Secretary of the Smithsonian Institution.
Washington, D. C., February 3, 1908.

Program of the eleventh annual meeting of the American Gastro-Enterological Association to be held at Chicago, Ill., June 1 and 2, 1908:

"President's Address," J. P. Sawyer, Cleveland; "A New Method of Ascertaining the Permeability of the Pylorus," Max Einhorn, New York; "Ischochymia," F. H. Murdoch, Pittsburg; "An Explanation of the Motor Activities of the Alimentary Canal in Terms of the Myenteric Reflex," Walter B. Cannon, Boston; (a) "Further Observations on the Chemic Co-ordination Existing Between the Salivary Glands and the Secretion of the Stomach"; (b) "Effect of Splenectomy on the Gastric Secretion," J. C. Hem-

meter, Baltimore; "Cholecystitis," H. W. Bettmann, Cincinnati; "Notes of Progress in Gastro-enterology," A. L. Benedict, Buffalo; "The Nervous Influence on the Production of Sugar in the Body," J. J. R. MacLeod, Cleveland; "The Behavior of Some Indigestible Carbohydrates in the Alimentary Tract," Lafayette B. Mendel, New Haven; "A Comparison of the Guaiac and Benzidin Tests for Invisible Hemorrhage in Diseases of the Digestive Organs," Franklin W. White, Boston; "Paper," J. Kaufmann, New York; "Intestinal Sand—One of Its Sources," Jesse S. Myer, Jerome E. Cook, St. Louis; "Some Recent Experiences with Gastric Ulcer," William Gerry Morgan, Washington; "Pathology of Malignant Growths," W. T. Howard, Cleveland; "Gastromyorrhea," J. Friedenwald, Baltimore.

The Cincinnati Academy of Medicine at its annual election March 2, 1908, elected the following officers: William Gillespie, President; R. B. Hall, First Vice President; Stephen C. Cone, Second Vice President; Mary Keyte Isham, Secretary; A. G. Drury, Treasurer; Arcdhl. Carson, Librarian.

William H. Taylor was tendered a dinner at the Queen City Club, Cincinnati, on the evening of March 2 in honor of the fiftieth anniversary of his graduation in medicine. Later in the evening he addressed the Academy of Medicine on "Fifty Years' Practice of Medicine in Cincinnati." At Dr. Taylor's right and left at the dinner table were Drs. Byron Stanton and B. P. Good, two practitioners with whom Dr. Taylor had practiced medicine for fifty years in Cincinnati.

Fire threatened to destroy the Piqua Memorial Hospital late in the evening of March 3, and caused great excitement for a short time. Volumes of black smoke poured up into the corridors and wards from the basement, where an overheated pipe had set fire to a casement. The patients were removed as hurriedly as possible.

Several of the patients were in critical conditions and their lives were imperiled by the fire. Neighboring residences were quickly converted into impromptu hospitals and the patients were taken there. The building was saved, the fire being confined to the basement, so that the damage will be comparatively small.

CONTRIBUTIONS TO THE LEGISLATIVE FUND.

Previously acknowledged	\$639 00
Madison County	2 50

John Dudley Dunham, Columbus.....	7 00
Crawford County	10 00
J. C. M. Floyd, Steubenville.....	2 00
Joseph Robertson	1 00
H. C. Minor.....	1 00
J. W. Collins.....	1 00
J. R. Mossgrove.....	1 00
W. E. Kerr.....	1 00
J. E. Miller.....	1 00
Melvin Gregg	1 00
Columbiana County	2 00
Tuscarawas County	17 00
Darke County	12 00
Miami County	10 00
Mahoning County	18 00
Shelby County	5 50
Cuyahoga County	215 00
Jackson County	5 00

COLUMBUS NORTHSIDE MEDICAL RE- SEARCH SOCIETY.

The organization of the "Northside Medical Research Society" was the outcome of the Monday evening meeting of forty physicians, who reside north of the viaduct. They assembled at the office of C. M. Taylor, corner of High street and Third avenue. The new society will be a sub-division of the Columbus Academy of Medicine, and will resemble in every respect that formed by the East Side physicians not long ago. It is stated that all doctors regularly practicing north of the viaduct will be eligible to membership.

The following permanent organization was effected: President, A. C. Wolf; First Vice President, J. F. Jones; Second Vice President, R. B. Taylor; Secretary, D. J. Snyder; Treasurer, E. W. Euans.

J. B. Searce of Chillicothe celebrated his seventy-first birthday anniversary March 16, and also the golden anniversary of his graduation from Jefferson College. He was tendered a surprise in the evening, with a banquet at the Warner House, where he was greeted by all the physicians in the city and about twenty-five other doctors from Southern Ohio.

J. B. Alcorn of Gallipolis has removed to Columbus and opened an office in the McLene, No. 185 East State street. He has returned from several months' stay in Vienna, where he devoted himself to the study of diseases of the eye, ear, nose and throat, and intends to limit his practice to that specialty.

NOTES.

D. J. Price, Newark, has removed to Columbus. Denver R. Burns, Columbus, has removed to Bryan.

C. B. Hamma, Cincinnati, has removed to Yellow Springs.

C. B. Hatch, Newark, is taking post-graduate work in Chicago.

Eric E. Sattler, Cincinnati, has returned after two years in Europe.

C. W. Stroup, Somerville, is recovering after a severe attack of smallpox.

U. K. Essington, Newark, is convalescing after an operation for gall stones.

Albert H. Lane was elected President of the Dayton Academy of Medicine.

Mark D. Stevenson, Akron, is convalescing from an attack of enteric fever.

S. Weir Mitchell, Philadelphia, Pa., celebrated his seventy-eighth anniversary, February 15.

The Journal of the American Medical Association issued an "Automobile Number," March 7.

H. B. Blakey, Columbus, has been elected to the dispensary staff of the Society for the Prevention and Cure of Tuberculosis.

J. R. Adams has removed from Jamestown to Milledgville, where he takes the place of Dr. Grant, who has located in Washington C. H.

William H. Taylor, Cincinnati, was tendered a dinner at the Queen City Club, March 2, in honor of the fiftieth anniversary of his graduation in medicine.

C. O. Probst of Columbus addressed a public meeting held under the auspices of the Physicians' Business League of Dayton, on the evening of March 17.

Governor Harris has reappointed A. Ravogli of Cincinnati as a member of the State Board of Medical Examination and Registration for the term ending March 18, 1915.

The Auglaize County Medical Society adopted resolutions forbidding any member to allow the use of his name in the local press in connection with a case, under penalty of expulsion.

On or about April 1, 1908, Walter I. Le Fevre of Cleveland will remove his offices from the Rose Building to the Lennox Building, corner of Euclid avenue and East Ninth street.

MARRIAGES

The marriage of Dr. Olen Edgar Chenowith and Miss Olive Aley King was announced March 19, but was solemnized two weeks previously.

Dr. Chenowith formerly lived at London, O., and is division surgeon of the Cincinnati, Hamilton and Dayton Railway Company.

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No. 5

ORIGINAL ARTICLES

ACUTE YELLOW ATROPHY OF THE LIVER.

BY D. B. CONKLIN, M. D.
Dayton, Ohio.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

Legg, in his classical treatise on bilious diseases, credits Ballonius, who died in 1616, with having given the first description of acute yellow atrophy of the liver. Although Rokitsansky, in 1842, pointed out the anatomical characteristics of the disease, there have been up to the present time, according to the latest available statistics, less than 500 cases recorded in medical literature. Many clinicians of large hospital experience have never met with the disease. Osler makes the statement that no case was admitted to the wards of the Johns Hopkins' hospital during the first eleven years of its work.

The rarity of acute yellow atrophy of the liver and the moot points in its etiology and pathology, abundantly justify the reporting of the following recently observed case.

Mrs. T., age 22, pregnant with her second child, consulted Dr. Humphreys, to the courtesy of whom I am indebted for this history, on July 30th., 1907, complaining of general malaise, slight headache, diarrhea and fever. (101.4 F.). On the next day the symptoms partially subsided, although there was some headache and occasionally vomiting. At midnight of the third day, after a short labor, she gave birth to a living seven months' female child without hemorrhage or notable event. The child lived ten hours.

At the morning visit the patient's condition was apparently normal. She was cheerful, without pain or fever and concerned only with the welfare of the child. If jaundice was present it was not detected in the slightly darkened

room. About noon of the day following the delivery, marked drowsiness supervened and rapidly deepened into unconsciousness, broken by frequent paroxysms of almost maniacal excitement. These paroxysms continued until death.

Coincident with or immediately preceding the development of cerebral symptoms, jaundice of the skin and sclera was noted and in a short time became intense. The urine (1½ pints), drawn with catheter, was highly colored by bile and free from albumin. No other tests were made. At this juncture the patient was seen by W. J. Conklin, in consultation, and the diagnosis of acute yellow atrophy of the liver confirmed.

The area of hepatic dulness was so markedly lessened that it could not be satisfactorily outlined by percussion.

The symptoms noted above were rapidly intensified until the death of the patient on the morning of the sixth day of her sickness and 56 hours after confinement. Except on two occasions the temperature was normal until a few hours before death when it rapidly rose to 104. F.

AUTOPSY.

The autopsy was made 24 hours after death.

The body was well nourished and developed, weighed 130 pounds, and the skin and sclerotics were stained a deep saffron yellow color.

Body cavities.—The pericardial, thoracic and peritoneal cavities were normal.

Heart.—The heart was normal in size and contained the usual clots. Several small extravasations of blood were observed on the pericardial surface. The endothelium and valves were normal. The myocardium was flabby and somewhat pale in color. The coronary arteries showed no changes.

Lungs.—The lungs crepitated everywhere and showed no abnormality.

Kidneys.—The kidneys were normal in size and moderately congested. Surface was smooth and the capsule free and stripped off readily. The

parenchyma was stained yellow and the cortical markings were moderately indistinct. The pelvis was normal.

Uterus.—The uterus was large and filled the cavity of the true pelvis and showed no external change. The muscular walls were soft and the mucosa rough, reddish in places and covered with shreds.

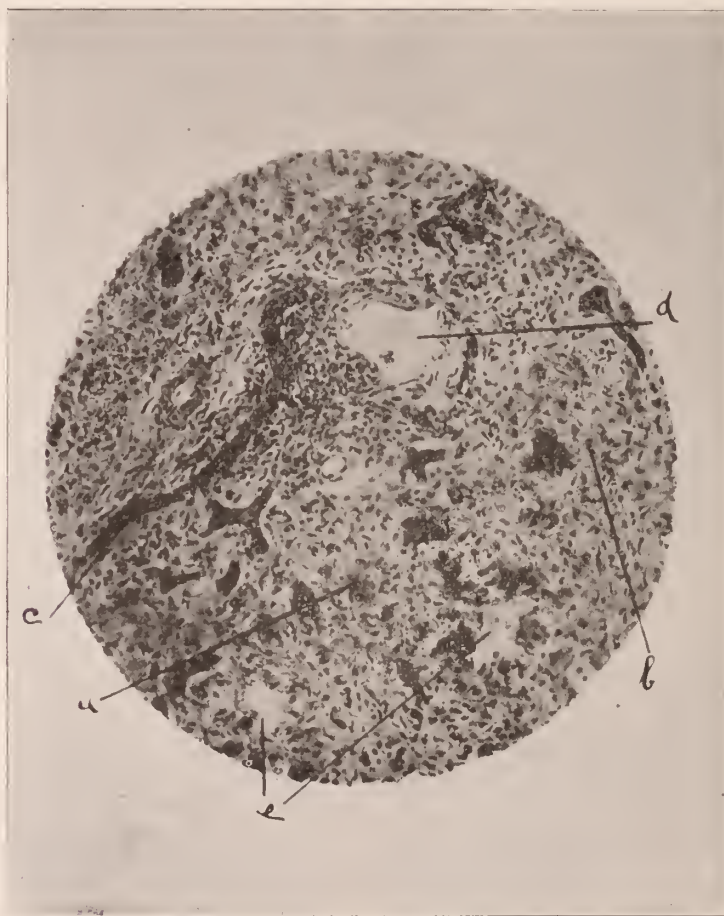
Ovaries and Vagina.—The ovaries and vaginal mucous membrane showed no changes.

Gastro-intestinal Tract.—The stomach, intestines and esophagus were normal.

smooth and mottled in color, yellow and brownish red. The consistency was flabby, and the capsule wrinkled and loose. The liver substance cut rather firmly and the cut surface was mottled yellow and brownish red in color. The lobular markings were absent. The gall bladder was moderately distended with a dark colored bile containing mucus.

Spleen.—The spleen was enlarged and congested. The pulp was very soft, deep red in color and bloody.

Pancreas.—The pancreas was normal.



1. Section from a red area (High power). a—Partially degenerated liver cell; b—Connective tissue stroma showing granular debris and absence of liver cells; c—Proliferating bile duct; d—Portal vein; e—Central veins showing the contraction of the lobules

Liver.—The liver, viewed *in situ*, appeared smaller than normal and was free from adhesions. It weighed sixteen ounces, about one-third of the normal weight for a woman of her physical development. The left was relatively smaller than the right lobe. The surface was

Bladder.—From the bladder was drawn 50 cc. of urine, specific gravity 1,024, which contained bile, albumin, and many hyaline, epithelial and granular casts. The characteristic crystals of leucin and tyrosin were present in large numbers.

*For the accompanying micro-Photographs. I am indebted to Drs. Heidingsfeld and Ihle.

MICROSCOPIC EXAMINATION.

Liver.—In sections through a yellow area, the lobules were swollen and indistinct. The cells were swollen, ill-defined and showed granular necrosis.

A few cells were present which stained faintly with eosin. The nuclei in some had disappeared, in others they stained faintly with hematoxylin and were undergoing fragmentary degeneration. In some places the cells had a run together appearance with several nuclei.

about the bile ducts and central vein. The bile ducts showed but little attempt at proliferation.

Sections through the red areas showed a network of fibro-vascular connective tissue, the spaces of which contained a few faintly stained and partly degenerated nuclei and granular debris. The lobules had undergone great contraction as evidenced by the diminished area between the bile ducts. The capillaries were distended with red blood cells and there were several small hemorrhagic areas. In the interlob-



11. Section from a yellow area (High power), showing the parenchymatous degeneration less advanced than in a red area. a—Liver cells in fair condition; b—Connective tissue stroma and debris.

They were separated in places by fibrillar connective tissue containing capillaries filled with red blood cells and with the debris of the disintegrated liver cells.

Some of the best preserved liver cells showed traces of fatty degeneration. The nuclei were thickest at the periphery of the lobule around the bile ducts, where the degeneration was most advanced. Numerous round cells were collected

ular spaces, the bile duct epithelium had undergone proliferation and there were many newly formed and tortuous bile ducts. About them were collected a large number of round cells. There was also an infiltration of round cells surrounding the central vein. Rarely was a well-defined liver cell seen in this section.

Kidney.—The kidney cortex was highly congested and the capillaries were distended with

blood. The glomeruli showed no change. Most variation from normal had occurred in the convoluted tubules, the epithelium of which was swollen and granular, with the nuclei faintly stained and often invisible. The lumen was filled with debris. Several small hemorrhagic areas were present.

Heart.—The heart muscle showed moderate granular degeneration, intense engorgement of the capillaries and many small hemorrhagic areas.

but rather to bring into relief a few of the cardinal features of the clinical history above recited.

The personal history and family record of the patient throw no light upon the causation of the disease about which there is the widest diversity of opinion. While some pathologists still adhere to the bacterial origin of the disease, the consensus of opinion is largely in favor of its toxæmic nature, although there is no agreement as to the specific toxin or rather toxins,



III. Section from a red area (low power) showing contraction of liver by the diminished distance between central veins. a—Central veins; b—Fairly preserved liver cells.

Spleen.—The spleen showed extreme hyperaemia, the pulp sinuses being dilated and engorged with blood. The pulp was increased in amount. No change was observed in the malpighian bodies or trabeculae.

It is not within the scope of this paper to enter into a detailed discussion of the varied phases of the acute yellow atrophy of the liver,

for in all probability a variety of noxious agents may be effective in bringing about the characteristic degenerative changes.

Quincke regards it as usually a sequel to a diffuse parenchymatous hepatitis. It is possible that the ordinary form of parenchymatous degeneration of the liver so frequently met with in certain infectious diseases (septicaemia,

syphilis). may at times assume a particularly virulent form and terminate in so-called acute yellow atrophy.

It has been abundantly demonstrated that certain poisons like chloroform narcosis, phosphorus, which in some countries (Sweden) is largely used to produce abortion, phosphoretted hydrogen, (Kobert) will produce degeneration of the liver cells very similar if not identical with those of the disease under discussion.

Some of the later investigations in regard to auto-lysis or the self digestion of cells are very suggestive. Quoting from an article by Wells and Bassoe, (Jour. A. M. A., Mar. 05) "In acute yellow atrophy we are forcibly reminded of the processes of auto-lysis, for in it we find an absorption of as much as a kilogram or more of liver tissue within a few days or weeks and at the same time the appearance of the products of proteolysis in the urine. It has long been taught that the reason for the appearance of leucin and tyrosin in the urine in this disease, is the throwing out of function of a large part of the liver tissue, so that these nitrogenous bodies being brought to it by the portal blood from the intestines, are not converted into urea as they normally are and so passed to the kidney to be eliminated. Indeed this has been much used as an illustration of the function of the liver in the formation of urea from amido bodies. But with an understanding of the possibilities of self digestion in the liver, it becomes a question if part of the leucin and tyrosin may not be derived from the auto-lysis of the liver cells, if not all of it."

It is of interest to note the abundance of leucin and tyrosin recovered from the urine. These substances were first isolated by Frerichs and are credited with considerable diagnostic value in acute yellow atrophy of the liver. Although these products of perverted metabolism are not peculiar to acute atrophy of the liver, there is no other disease in which they are found in such large quantities. Occasionally they are so abundant as to be spontaneously precipitated from the urine. Their presence is always strongly indicative of acute degeneration of the liver and should always be sought for in establishing a diagnosis in doubtful cases.

It was formerly assumed that the presence of leucin and tyrosin in the fluids and tissues of the body was due to the inability of the damaged liver cells to complete the transformation of the nitrogenous excreta into urea, but the late studies in auto-lysis mentioned above, support the

view that they are the result of the spontaneous digestion of the liver cells.

It is not at all improbable that many of the cases which have found their way into the literature of the subject are merely the end lesions of various hepatic affections, especially icterus gravis and the atrophic form of cirrhosis of the liver, yellow fever and other infections. The writer has knowledge of a case recorded in the death records of his home city as due to yellow fever, (the diagnosis being made by a physician of large experience in the treatment of that disease) which, viewed in the light of present information, was unquestionably a typical example of the fulminant type of acute yellow atrophy of the liver.

Evidently the last word on the etiology of this disease is still unwritten.

Age and sex constitute important predisposing factors. The case reported conforms to the rule since more than one-half of the cases occur in the third decade of life. Females are more susceptible than males in the proportion of two to one. This is doubtless due to the influence of pregnancy since recent statistics show that one-third to one-quarter of the cases are found in pregnant women. It may appear at any time during the pregnancy or in the puerperium, but the period of election seems to be from the fourth to the seventh month. Abortion almost invariably takes place. The liver is peculiarly susceptible to degenerative changes during pregnancy and there is ground for assuming that these changes play an important part in the production of puerperal eclampsia. (Rolleston).

The course and duration of acute yellow atrophy vary greatly. Cases certainly occur in which the disease extends over weeks and months and on the other hand deaths have been reported within twenty-four hours after the initial seizure. As shown by the statistics of Thierfelder and Hunter, death takes place in more than one-half of the cases between the fifth and fourteenth day. The most rapidly fatal cases are in pregnant women.

The case reported in this paper is a striking example of the foudroyant or fulminant type of the disease commonly met with in pregnancy. In the slowly developing cases it is the prodromal stage which is lengthened, with the access of the second or toxemic stage the disease rapidly progresses to a fatal issue.

The advent of brain symptoms, either coma or convulsions, is of ominous import. Legg

lays stress upon the dilatation of the pupils as the forerunner of cerebral complications and insists on the necessity of carefully observing the eyes in all cases of severe jaundice.

The disease is almost invariably fatal. A few cases are said to have recovered. These have rarely advanced beyond the prodromal stage when scepticism as to the correctness of the diagnosis is admissible.

"DIAGNOSIS OF SURGICAL DISEASES OF THE KIDNEYS."

GEORGE M. TODD, M. D.,

Visiting Gynecologist to St. Vincent's Hospital,
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The diagnosis of those diseases of the kidneys, which are surgical in character, in their early periods is difficult; in their fully developed stages, when positive symptoms are present, the diagnosis is much simpler, this is often late when the aid to be given to the patient is much lessened. Clinical study, exploratory incision, X-ray, careful analysis of the urine, chemical and bacteriological, have shown that an early diagnosis can be made and the remedy applied before the disease has progressed beyond the hope of success. With the accurate methods now at hand for the examination of the kidneys and their secretion, we are able to determine whether they are healthy or diseased and often the extent and nature of the disease with which we have to deal; also whether one or both organs are involved, and to what degree each kidney has been disturbed; also we can learn the combined and individual functioning capacity of the organs.

The condition of the kidneys, as determined from a study of the history from the physical examination, from the urinary analysis, from the cystoscopic examination of the bladder with the appearance of the ureteral openings and the X-ray, whether one or both organs are diseased, can be determined by the facts learned from careful observation of the urine drawn from each kidney by the ureteral catheter. The functioning capacity of the two organs is estimated by the total amount of urea eliminated in twenty-four hours and the individual functioning capacity from the percentage of urea in the separated urine, from the cryoscopic index, and by the rapidity and quantity of chromogen and sugar which each kidney eliminates after an injection of methylene blue or phloridzin.

The most frequent disturbance of persons suffering with surgical diseases of the kidneys is in the frequency of urination or from the quantity passed, or changes in gross appearance; thus it is plain that in making our clinical history, care should be taken to ascertain how often they urinate during the day and night, what the urine looks like, whether it contains blood or pus, and whether the pus or blood is mixed uniformly in the urine, or whether they are present in the first or last urine, and if bloody, whether the blood is changed or not. The only early evidence usually in renal tuberculosis is frequent urination which may be painful, but is sure to be cloudy and contain pus. Pus or blood which is present only in the first urine that is passed is never renal, but must come from a lower zone; when from the kidneys pus, blood and other abnormal substances are always uniformly mixed through the urine. Smoky urine is believed to indicate the kidney as the source of the blood.

And while most patients suffer with the foregoing urinary disturbances in the course of their disease, how frequently do we see those who are far in advance in disease and have been unwell for a long time, to never have observed anything out of the ordinary, either in the urine or in urinating. Considerable hematuria and pyuria pass unnoticed until pain attracts attention. The painless hematuria of chronic granular nephritis, malignant disease of the kidneys, renal calculus and some forms of renal tuberculosis pass unnoticed until the disease has impaired their general health, when they consult us for anemia, gastric, or intestinal disorders, when physical examination points to the kidneys as the offenders.

The age of the patient, the duration of the symptoms and the rapidity of their development are all to be considered as important in the diagnosis. Malignant tumors of the kidneys occur with greatest frequency in the young or the old, tuberculosis is a disease of young adults, hypernephroma develop gradually, while cancer and sarcoma are marked by their rapid growth. A history of tuberculosis or gonorrhea or syphilis, of an injury or an operation upon the urinary organs are important data. The history of pelvic inflammation in woman may point to source of infection of the kidneys. I remember several patients with pus kidneys following suppuration in other parts, and I now have under treatment a perinephritic abscess following an axillary abscess, and know of one other secondary carbuncle of the neck.

It has been suggested that when you have to deal with a pyogenic condition of the kidney, to ascertain and look for suppurations or abrasions

in other parts of the body. Renal tuberculosis is most always secondary to tuberculosis of the lungs and other parts of the body. The kidneys are retroperitoneal organs situated in the loin on a level with the last dorsal and first lumbar vertebrae, and cannot be felt unless enlarged or misplaced. They have a definite shape which is easily recognized and have no respiratory mobility; when movable and replaced into the loin will maintain that position as long as the patient remains in the recumbent position. The colon lies in front and to the inner side.

To differentiate tumors of the kidneys from tumors of other abdominal organs it is always important to keep the colonic relations in mind. The colon may be inflated thus materially aiding us in the position of the kidney tumor.

In observing the urine it is essential that we should know the total amount passed in twenty-four hours, its color and reaction, whether it contains albumin or sugar, and most important of all the presence of such microorganisms as the streptococci, tubercle bacilli, staphylococci and colon bacilli.

The infectious varieties of chronic nephritis cannot be distinguished clinically from nephritis due to other causes, and since it has been found that the infectious varieties are benefited by decortication and nephrotomy, it is easy to understand the value of determining the microorganisms. If the kidney is palpably enlarged this will often throw light upon the situation, but it is an error to consider every enlarged or painful kidney as diseased, as it has been found that the extra work put upon a fairly healthy organ by the inefficiency of the other, will produce tenderness and enlargement.

In renal calculus the X-ray has proven a valuable aid in diagnosis. At one time a slender body and a dense calculus were considered necessary that a stone might be shown, that it was impossible to do satisfactory work through heavy, fat walls, or upon small soft stones, but with the improvement in technique, the proper placing of the body, all kinds and conditions do not offer serious barriers.

In determining the functional activity of the kidneys phloridzin offers us a certain and easily-applied method. The ability of phloridzin to produce a renal glycosuria after an injection of from one to one and one-half millegramme from the healthy kidney in fifteen or twenty minutes, whereas a much longer period is required when there is a decrease in its functioning capacity.

The data that are gained by the use of the cystoscope and the ureteral catheter with the analysis of the separated urines are so necessary that no

one should undertake the treatment of surgical kidneys unless he is prepared to make use of them. The appearance of the ureteral orifices, the condition of the vesical mucosa and their position often point to the correct diagnosis, changes in the shape, size and position of the ureteral orifices and in the character of the efflux therefrom often throw light upon the disease and its extent. It has been shown conclusively by those proficient in cystoscopy that in general we may say the condition in shape, size and appearance of the ureteral orifice corresponds to the changes taking place in the kidney pelvis. The ureteral orifices, in cases of pyelitis with acid urine, are contracted and the urine is thrown out with much force. In cases with alkaline urine the orifice is somewhat dilated, the edge everted with the surrounding mucosa congested, as the kidney pelvis and ureter are not much altered in chronic granular nephritis, malignant tumors of the kidney or in renal stone, neither is there much change in the ureteral orifice. In renal tuberculosis the cystoscope furnishes evidence of value. In the early stage of the disease, before the kidney has begun to break down there are no changes that can be depended upon unless it be the finding of ulcers in the bladder which are studded with tubercles. Later the ureteral orifice becomes dilated, elongated and widened, and surrounded by numerous ragged ulcers. The discharge from the ureters is cloudy and mixed with caseous material. This alone will often point to the offending organ. Repeated search for the tubercle bacilli should be made. In renal stone the orifice is not changed unless the stone be near the mouth, when the ureteral catheter is certain to demonstrate its presence.

DISCUSSION.

R. B. Hall, Cincinnati: I was greatly interested in this very excellent paper. It is full of very many interesting and valuable points. While all of us may not be able to make a spot-sure diagnosis by cystoscopic examination of the bladder by the observation of the minute changes in the appearance of the ureteral orifice, yet there is much knowledge to be gained and they are interesting as well, and the bladder should be carefully examined. We may note a change of the ureteral orifice in various stages of kidney disease, but to make a differential diagnosis will be an extremely difficult thing, and in many cases absolutely impossible to do so.

It is a well-known fact that alkaline urine containing pus is but a suggestion of tuberculosis of the kidneys; and to aid these patients by all that surgery is capable of doing, an early diagnosis of the kidney disease should be made, and everything done to aid in early diagnosis is welcome to the profession.

I, therefore, only want to congratulate the Doctor, and emphasize the points made in his paper

by insisting on making an early diagnosis of malignant or tubercular disease not usually distinguished from other cases, and thus give the patient the benefit of an early operation.

When only one kidney is involved, it is possible to save a very large percentage of the patients of tuberculosis of the kidneys. By an early diagnosis and removal of the kidney you may save the patient from an early death. As to spot-sure differential diagnosis of stone of the ureter by X-ray, if the X-ray shows you a stone and the clinical diagnosis agrees with the X-ray picture, it has some bearing, yet if this is so, we do not always find a stone when the case comes to an operation. Sometimes you do not find the stone just where the X-ray shows it, but as a rule you will find it just where the film shows it to be. I know a case in Cincinnati, not my own, that is one of the most interesting cases that I know of along this line. There were several X-ray photographs taken of this patient in different positions, and the X-ray photograph showed the stone to be present. She was operated upon by one of the best surgeons of the city, and he did not find any stone at all, nor did he find anything to explain what the shadow shown on the skiagraph was due to. There was another case of peculiar interest to me. A young man nineteen years of age. There were three X-ray pictures taken which showed a stone. He was operated upon, the kidney came in view, was incised, and no stone was found.

These are two instances I know of positively where there could not have been any doubt, according to the photograph, yet there was no stone to be found. X-rays are like everything else that is human, they sometimes don't bring the answer.

E. O. Smith, Cincinnati: If I understand the essayist correctly, he made the statement that the use of the ureteral catheter was the only way of determining whether there was a stone in the ureter. I simply want to take issue with him in this, that a calculus can be located anywhere from the kidney to the bladder by means of the X-ray, when properly used.

Flint's murmur is occasionally associated with aortic insufficiency. It is presystolic in time, best heard at the apex, and is not transmitted. Potain thinks it due to the impingement of the re-fluent aortic current on the anterior mitral curtain before it is made taut. Chauveau's fluid vein theory accounts for the production of the organic, but not the functional murmurs. The organic murmur is caused by "fluid veins," eddies or whirls occurring in the blood stream in all cases where the blood is forced suddenly to enter from a narrow opening into a wider one, or where two blood streams coming in an opposite direction meet. * * * When a patient complaining of pain applies to a surgeon, the surgeon ought to seek for the real cause. Pain upon the surface of the body, if properly appreciated, may be considered as an external sign of some distant derangement.—Hilton.

SPINAL CURVATURE ARISING FROM THE IMPROPER SEATING OF SCHOOL CHILDREN, AND ITS PREVENTION.

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[Read before the Ohio State Medical Association, Cedar Point, 1907.]

The importance of having medical men act as school inspectors or supervisors is, of course, well known to you; but as we were all raised as school children and received as a part of our training a dose of the very evil I would ask you to try to help eradicate, the very familiarity with these often causes them to be passed over by most of us as harmless, integral parts of our school system.

To bring this matter again to your attention let me present to you Dr. Julius Wolf's definition of scoliosis, commonly called lateral curvature of the spine. Wolf, as you may remember, is the author of the so-called "Wolf's law," in which he seeks to show that all deformity, bony or otherwise, to be the anatomical result of abnormal function or position. "Scoliosis," says Wolf, "is the functional anatomical compensation of the bones of the vertebrae towards a habitually hunched, rotated and deviated position of the trunk." In other words, scoliosis is (usually) a static deformity due to faulty position and weakened muscles.

What has this to do with the school system as we have had it and still see it now?

Guillaume found lateral curvature in 218 out of 731 school children—29.5%. Hess, of Hoffa's orthopedic clinic in Berlin, found that in the schools of Charlottenberg, the aristocratic suburb of Berlin, but 2% of all the girls just entering the schools had spinal curvature, and that 78% of all those who had just completed their term of eight years had a greater or smaller degree of spinal curvature. Eulenberg found, in 1000 cases of lateral curvature, that the disease began between the ages of six and fourteen in 887 cases. Girls are afflicted more than twelve times as often as boys, the proportion being 93% for girls and 7% for boys. Dr. Scudder shows that 25% of all girls in the Boston schools were either round-shouldered or had spinal curvature.

So far we have proven only that scoliosis is a disease which is caused by faulty position and occurs during school age. Can we find in school life anything which will habitually cause this

faulty position in so great a proportion that we can safely ascribe to it the formation of this great number of cases? The most cursory survey of the position of the majority of school children has convinced the workers in the field that the habitual position forced upon the pupils of our schools by faulty seats and by the slant writing is the great and greatest cause of scoliosis.

Caille estimates that 95% of curvatures are not primarily due to bone disease, but caused by faulty position in school. Kocher calls scoliosis "Schulkrankheit" (school disease). Staffell calls it "Sitzkrankheit" (disease of sitting). Dr. Shenk has studied the attitude of 2000 school children in writing. In 1600 the trunk was found inclined with a convexity of the lower dorsal curve to the right. In 340 the trunk was inclined as a whole to the right, while the body was twisted to the left. In only sixty was there no twist of the body. In only 380 was the transverse axis of the body parallel to that of the desk.

In a three hours' examination in the Harvard Medical College, Bradford found his students seated with the paper twisted around so that it pointed towards the left, while the writing slanted down towards the right. The left hip was in front of the right, while the right shoulder was higher up and in front of the left, and there was a total right spinal curvature. He assumes that if this is the position carried by strong men, the weaker children will invariably assume the attitude.

Dr. Scudder found in one room in the Boston schools girls differing seven years in age and $23\frac{1}{2}$ inches in height all seated at desks of exactly the same size. In Cleveland I have also seen the same condition of affairs. In one school 18% of the pupils when seated with their backs touching the seats could not touch the floor with their feet. Most improperly seated ones had some form of curvature. We have therefore two great predisposing moments in school life to cause scoliosis. Firstly, improper seating; secondly, improper position in writing.

It can be your function, as educational advisors, to determine what are the proper seats for the pupils; what is the proper position in writing; to seek out all those improperly seated, to instruct the teacher to look out for the faulty position in writing and to correct these whenever possible.

What is the proper desk seat? Snellen, the oculist, has carefully figured this out. First, the seat should be exactly the height of the posterior aspect of the knee joint or two-sevenths of the height of the pupil. The seat must be hinged, so as to permit the pupil to stand between desk and chair and to allow of sweeping and scrubbing.

This height is about 37 cm. for children between six and nine years.

Second.—Depth of the seat should be three-fourths of length of thigh.

Third.—It should be properly curved to prevent pressure on the nerves and blood vessels; that is, slope downwards towards the back and have the edges beveled off.

Fourth.—There should be a properly curved back rest supporting the lumbar spine.

Fifth.—The desk should have its near edge one inch above the level of the elbows.

Sixth.—The slope should be 15% for writing, with an adjustment for reading. Most desks are too flat, and pupils have to stoop over too much.

Seventh.—The seat should project well under the desk, so that in writing the body is held perpendicular.

	Height of scholar.	Height of desk above seat front.		
I.....	98-105 cm.	51.5		
II.....	109-120	56		
III.....	120-131	60		
IV.....	131-142	66		
V.....	142-153	71.5		
VI.....	153-164	76.5		
VII.....	164-175	81.5		
VIII.....	Over 175	86		
Height of rear edge of desk.	Height of seat.	Difference.	Depth of seat.	
45.5	30	15.5	22.5	
50	33	17	24	
54	36.5	18.5	25.5	
60	40	20	27	
65.5	44	21.5	28.5	
70.5	47.5	23	30	
75.5	51	24.5	31.5	
80	54	26	33	

The feet must rest squarely on the floor to afford the erect trunk this most important support. Foot rests and footstools tabooed, as Boston inspectors found them kicked all around the room. Pupils should be graded and seated according to size, eyesight and hearing, not only by their standing in class. Deaf and nearsighted pupils should be in front; farsighted ones behind. The light should come over the left shoulder, and the blackboards, of a dull finish, not farther away than thirty feet from the rear seats. In all this we presuppose a normal child. No desk will remove an original weakness of the spinal muscles, but a bad one will only make it still worse. No seat can be devised in which a young child will remain in the normal position for any length of time, but the true aim should be to devise a seat in which a child will naturally assume such a correct position after having voluntarily assumed

another. Movement is a child's way of resting. Seats should have backs to prevent fatigue, and should be so shaped so as to prevent the feet from "going to sleep." Exercises should also be given at least four times a day to relax.

Professor Snelling, the famous oculist, first noticed that scoliosis was forced upon the pupils by slant writing. The right elbow was pushed way over on the desk, while the left hand held the paper and was close up to the body, with the left elbow below desk level. The paper becomes tilted so that the right edge is pushed forward and is higher up, while the writing slants to the left. The line of the eyes deviates just as does the paper and produces curvature. To make the position of the head easier, it is tilted to one side and the pelvis and spine rotated to fix it. The right shoulder is higher than the left, and there results a scoliosis, with the dorsal curve to the right. The inkwell being forward is another bad feature, which forces the axis of the shoulders forward and upward. Vertical writing in a good seat is the ideal.

The exact manner in which these forces cause scoliosis is not in place here. It suffices to say that by weakening the muscles which normally hold the body erect in the normal position a false position is habitually assumed, and in this false or deforming position growth takes place during eight out of the twelve waking hours of the school child for ten months in the year.

The effects of scoliosis upon the lungs, heart, large blood vessels and stomach are well known, and where they are well pronounced decrease the nutrition of the body and weaken the strength of the muscles, this latter still further tending to increase the amount of scoliosis. A vicious circle is thus set up, whose final outcome is often the severest imaginable deformity of the spine, ribs, thorax and internal organs.

The prevention is simple, and in this case is worth not a pound, but countless tons of a cure, which is as yet but an incomplete one. The prophylaxis consists in but three things:

1. Vertical writing.
2. Correct seats.
3. Relaxation and exercise.

The teachers have alternately praised and condemned the vertical writing, not because it was not correct pedagogically, but because the "banking and business" interests—those two Molochs upon whose fiery altars the modern socialists find so many humane interests sacrificed—condemn it. Their objection to the vertical writing, forsooth, is not that it breeds any of the ills that flesh is heir to, but that it is not conducive to speed and has no individuality. To my mind their first ob-

jection is a good feature. The craze for speed, our real "dementia Americana," must sooner or later give way to sanity and "Gemüthlichkeit." As far as the lack of originality is concerned, it may no doubt be easier to forge the signature of a vertical writer, but from my point of view it is far more preferable to avoid scoliosis.

Since writing the above the following press notice appeared in the *New York World*:

Instruction in vertical writing, which of late years has been the vogue in the Greater New York public schools, is to be superseded by instruction in the free-arm system. The campaign in favor of the new system was undertaken after talks with business men, who are always in search of clerks who can write rapidly, legibly and tirelessly.

Letters of inquiry to the New York Chamber of Commerce, Board of Education and Superintendent of Instruction have as yet remained unanswered. Apparently this matter is "none of a mere doctor's business." I have also noticed in our local papers a news item which I have not as yet been able to verify, that in the Boston schools the business men have also compelled the abandonment of the vertical writing for the same altruistic motives.

Correct seats are easily obtained. The modern school bench closely follows the rules already enumerated. When such school desks are made adjustable to the height of the pupil they leave little to be desired, except that the janitor usually loosens the wrench or handle by which the adjustments are made and thus renders them useless. If the increased cost of such adjustable seats is objected to, and it usually is, then the majority of seats in any one room can be of the ordinary non-adjustable kind, of a size suitable for the average age or size of the pupils, and a smaller number of desks of different size, say two rows, gives the odd sized pupils a chance for a comfortable seat.

Relaxation and exercise are now a part of every curriculum, but instead of giving it, as is usually done, as calisthenics or breathing exercises, in one solid lump of fifteen to thirty minutes morning and afternoon, it should be divided so that the pupils can have from five to ten minutes of rest, relaxation, motion and fresh air at the end of each school hour. This takes up no more time and is much more efficient.

Conclusions: The majority of cases of static scoliosis occur in school girls, and, if not directly caused by, is certainly "aided and abetted" by bad lighting, bad seating, slant writing and the lack of proper relaxation and exercise.

Vertical writing, proper adjustable seats and plenty of chances for motion and relaxation are the most efficient preventatives.

DISCUSSION.

Dr. Friedrich, of Cleveland: Although the hour is advanced, I think we could well spend a few minutes in discussing this paper to advantage. The importance of the subject is self-evident when we consider that the whole nation has to pass through the school house. Practically 20,000,000 of this nation are so engaged. The law compels us to send our children to school. It is a wise law and a just law and we are willing to pay the expense of the school; but on the other hand, the parents who are forced to send the children to school and the children who are forced to go to school have certain inalienable rights which they can claim, and it is certainly the right of the parents and the children to demand that the children be not placed in conditions under which they might afterwards receive physical harm.

The law of Ohio forces the boards of health to supervise the school hygiene. I don't think it is done in many cities. We have for three years in Cleveland. It is hard to get school inspectors. Where will you get a sufficient body of men to do that? They have to be gradually trained. We have over a hundred public school houses and some sixty private and parochial schools, and we have twenty-six doctors to do it. We have gone over the ventilation and lighting, and this winter I want to go into the seating of the children. It is by no means an easy matter. The school fund is not large enough to supply new and modern desks and chairs for the children, and that is one of the problems which faces us.

The school teachers know absolutely nothing about such hygiene. They have no idea what it is. They let the children strain their eyes in the light, reading and writing, they let them put the eyes close to the desk—three or four inches—let them take any position they want without correcting them. I do not blame the teachers; they never have been taught better, but it should be incorporated in their curriculum, to pass through a course of school hygiene. It is the medical societies that will have to get these laws passed. Our school hygiene is at the present time at a very low stage. In Germany they had to look around and do something. They needed their men for soldiers in the army. They found the schools a source of degeneration to the race. We need our men in the industrial army, which is just as important as the army in the field. It is high time for medical men to institute this reform and try to have our school rooms put in condition in which a child can no more receive physical harm.

Dr. Held: The city of Cleveland is unfortunate. Twenty years ago I attended a society of teachers, and I heard this same thing thrashed out in that teachers' society that we have heard mentioned today, except the matter of vertical writing. All else that has been offered these teachers who knew nothing of medicine, taught and discussed then. Now if the teachers of Cleveland know nothing about it, we can see how far behind the times they are. If certain magazine articles which I have read lately are to be believed, Cleveland was mentioned as the best governed and best regulated city in the United

States. I cannot harmonize all these facts. The country school teacher twenty years ago regulated the seating of pupils along lines such as we have heard of here today. The desk in the country school house was graded, small ones and large, and the pupil was placed according to his size in a desk built for that sized pupil.

It is true that great improvements may be made in the hygiene of schools, but I see no necessity to bring up just one thing and trying to correct all the faults of the school there. The teachers, I believe, are an intelligent body and do a great deal to improve the condition of the pupils, both in intelligence and things pertaining to the school hygiene. I know this to be true. I know they spend a part of their time in studying these subjects. I know they do in other cities outside of Cleveland, and I believe that the teachers are often unjustly criticised, especially about the seating of children in school, when the conditions do not bear out the accusations.

Dr. Weitz, of Montpelier: The discussion is of deep importance, and the disagreements are simply due to the change of fads; the change of ideas, or the change of attention from one idea to another. What the last speaker has said in regard to country schools was true. I remember when I went to school I was constantly taught to sit up straight when writing. "Sit straight!" It was printed in the copy books and the teacher told it to us time and again. The matter of writing fell into disuse somewhat, owing to the stenographer, the typewriter, the telephone and the telegraph, and there has been of late very little attention paid to it.

I went into our school last winter and saw what this gentleman spoke of. I saw them with their faces within four inches of the desk, more than half of them. I said to the teacher, "Are the pupils nearsighted?" She replied, "I do not know." "Why do they hold their heads so close to their books?" "I do not know." They have simply forgotten about the other things the last gentleman was speaking of. Something else has crowded it out.

I am glad the vertical writing was brought up. That is a matter that the hygienic side of was never presented. It could be learned more quickly and was more legible and therefore was adopted. Then it came up that they could not write so fast, and as the essayist said, it was discarded. It was not with reference to the legibility, but they could not get over as much ground in an hour. They they adopted the slant then then the natural slant, but the idea of its being unhygienic was not brought to the attention, but if it has that value it can surely be enforced. But these things are going through the natural changes; the pendulum swings one way and the other, and for a time athletics will receive great attention. But the pupil will sit in this cramped position for hours in the day, and have their athletics only one hour.

Dr. Anders: On the market there are desks and seats all in one casting, and if you raise the seat you raise the desk back of it. There are also those which can be raised independently. How do these compare in practicability?

It might be possible to correct the position if the chair was placed to the left so that the pupil

would not be just back of the middle, but to one side.

With regard to country schools, I know a great many of them have different sized desks, but they make the mistake that they will start in next to the teacher with a small sized desk, and next back of it a size larger, and increases in that way to the back of the room. The little fellows in front have desks suited to them, but the seats are too high. Each size in succession has the same difficulty. If they would put the small ones all in one row and the next size in another, it would be better in that regard.

Dr. Stern, closing discussion: The gentleman says Cleveland is the best governed city, but that there is something wrong with her schools. The best governed city must have the best health officer. He should be backed up by the best medical society in the state. The Republican board of education will not then dare to say to the Democratic health officer, "It is none of your business what we do." They will not dare to say to the Cleveland Academy of Medicine, "It is none of your business, because you are a lot of doctors." They would not talk that way to the chamber of commerce or to the business man. It is because we doctors have not developed in politics, but as soon as we do they will listen to us.

The trouble with the country schools is that they have different classes in one room; the cities have the one grade only in one room. It has been presupposed that the fifth grade, for instance, has children of all one size, therefore those that are over or under size suffer in consequence. This is as true today as it was when I went to school and unfortunately was about half a head shorter than the rest of the pupils. I always suffered from the fact that I never could get a desk small enough in the particular grade I was in to get my feet on the floor.

The teachers in Cleveland have not the slightest supposition as to how the children should sit. When I once proposed to a teacher that a certain girl had spinal curvature, she referred the matter to the principal, and the principal referred to the assistant superintendent, and the assistant to the superintendent, and the superintendent to the director; and the next time I came around the girl was still sitting at the same desk. The teacher had no initiative. If they have, the powers that be do not allow them to use that knowledge.

The best desk is that in which the desk and seat can be adjusted separately. If you will have in a room of twelve rows eight of the average size, two on one side of small ones, and two on the other side of larger ones, each pupil might be correctly seated so he could hear and see. The deaf and nearsighted should be in front, those with good vision and hearing in the back; and with proper light you will have a condition that is ideal in the school room, in which now the condition of scoliosis is very great.

The gall stone that is quiet in the gall bladder or in the bile ducts cannot be influenced by any medicinal treatment. There is no solvent for gall stones, and there is no medicinal treatment for removing them.—Musser.

THE MECHANICAL TREATMENT OF HABITUAL CONSTIPATION.

WELLS TEACHNOR, M. D.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

The loss of control over the influences that produce defecation as occurs in habitual constipation is a condition slightly less deplorable to the individual than the loss of functions of the sphincter muscle and a consequent incontinence of feces. Any condition that interferes with the normal functions that actuate the passage of the feces, if continued, soon becomes a formidable disease. While in the majority of instances they do not threaten the life of an individual, they become a positive inconvenience, and source of danger by the impairment of the health from absorption of the watery elements of the fecal mass, together with the abrasions and tears following the passage of the hard mass through the rectum and anus, and the inflammatory condition of the mucous membrane from irritation and pressure on its walls while retained makes it a most prolific source of grave and troublesome diseases of the rectum and anus. It is a disease of adult life with its location established in the large intestines. It is encountered most frequently in women because the neurotic element that plays so important a role as an etiological factor in its production is more highly developed. Therefore, they are more susceptible to this disease than men.

The most powerful influence in determining the act of defecation is that of habit. If it plays such an important role in human existence as to be a recognized element in emptying the pregnant uterus at the end of gestation, thereby being a factor in the perpetuation of the human species, it is reasonable to conclude that it controls many of the minor functions of the body. Every function of the organs of the human body proceeds by nature in a rhythmic manner, a period of activity followed by one of rest. Therefore when the natural activity of the intestines is not observed a pathological condition soon takes the place of the normal.

No rule can be established as a normal interval between evacuations, two motions daily may be normal for one individual, while on the other hand an interval of two or three days may not be irregular for another, and still be in the confine of health, provided they answer the call of nature at the time the colon by habit deposits its contents into the rectum. This can be controlled at almost an exact time each day. The milder

forms of harmless stimulant to peristalsis that may be followed by a fecal motion in the normal state are a glass of hot water on rising in the morning,—a cup of hot coffee immediately following breakfast, or a full meal and the depressing effects of tobacco, either from a pipe, cigars, or cigarettes. Should the individual fail to respond either from neglect or inconvenience, we soon have a deficient nervous excitability in the intestinal canal. In consequence of which we soon have a retention or rather an arrestation of the feces. They become hardened, the mass breaks and forms into balls or scybalous masses and lodge in the angulation and saculi of the gut. There is a loss of energy and the development of neurotic symptoms in many. The vital powers are depressed, causing a muscular relaxation of the bowel wall, in addition to the irritation produced by the arrestation of the feces. A subacute inflammatory condition of the mucous membrane of the sigmoid and upper rectum results in an edema of the m. m., in the peristaltic action is temporarily increased to overcome this obstruction. Continuous and unsuccessful attempts end in a complete atony and a loss of the afferent impulse to the cerebral center. The turgescence is augmented by the daily abuse of purgatives, of which these individuals are always the victims. This local condition gives rise to discomfort and a feeling of impending danger and anxiety should the bowels fail to move daily. Often accompanied by a feeling of incomplete evacuation. This picture of the local pathological conditions I do not believe is overdrawn, and is the cause and result, conservatively speaking, of more than ninety percent of our cases of chronic constipation. Fortunately these are the cases that are amenable to the form of treatment I propose to indicate. These cases can only be permanently relieved by local and mechanical means, and as the rectum offers the nearest avenue to the seat of action, proctologists for this reason come in for a large share of the cases, together with the systematic application of the proctoscope and colonoscope, taking advantage of the principle that the viscus will distend from atmospheric pressure the moment a tubular instrument passes the sphincteric area. By the use of these improved instruments for treating diseases of the rectum and intestines has greatly broadened our knowledge. To design a method of treatment for this condition implies a knowledge of the etiological factor producing it. To say that anyone way of treatment is indicated in all cases regardless of cause would not be calculated to inspire confidence. Much has been written and offered to the profession, but none

of the methods have taken a systematic form. They have have been applied so generally without attention to cause and conditions that their affect has proven of little value. The various forms of electricity, the panacea for all evils, has been extolled by many. While the majority of practitioners are content to continue to add fuel to the flames by the administration of the various cathartic drugs with which the market abounds. The process by which the fecal contents pass through the intestinal canal, ending in defecation, is purely a mechanical one, and a loss of the proper adjustment of these factors can best be restored by the application of the mechanical principles that constitute the normal stimulation in the intestinal canal. Attempts to accomplish this restoration of normal peristalsis have been made by packing the upper rectum and sigmoid with gauze saturated with glycerine through the proctoscope. Rubber bags passed the same way in the sigmoid collapsed and rhythmically extended have been advocated. The most ingenious one devised is by E. J. Hirschman of Detroit, which fits over the end of a Wales bougie and is introduced by this means and distended at will with an ordinary atomizer bulb. They are all unsuitable, giving rise to considerable irritation in introduction and inconvenience while in position. The plan I have adopted and found most suitable for stimulating the peristalsis action of the atonic bowels if the distension of the entire colon with air by means of a pneumatic proctoscope with the patient in the knee chest posture. A certain amount of distension comes with the immediate introduction of the instrument if the patient is placed in a position on a table specially devised for this purpose. The instrument is lubricated and passed into the sigmoid. The obturator is now withdrawn and a certain amount of air rushes into the gut from atmospheric pressure, usually quite sufficient for a complete examination. It does not require great care in introducing the instrument in this condition. It is in the long-standing cases of proctitis where the walls are weakened that either the instrument or the distension may rupture the gut. After the instrument is in position I attach the cut-off from a compressed air tank. The force must be regulated so the air enters gradually as the force of one or two pounds pressure will immediately cause pain. This distension is gently continued until the gut is filled to toleration, usually this is recognized by cramp-like pains in the region of the stomach and a fullness of the abdomen. The cut-off is removed and the air is permitted to escape gradually until complete relief is experienced. This process of distending and collapsing the gut is repeated five or six times

at each sitting. The final distension is permitted to remain if not painful. This can be accomplished by a rotary movement while withdrawing the instrument. This process is repeated daily for one week and on alternate days the second week, after this time the patient is partially thrown on their responsibility with only an occasional distension if the case demand. By the end of the third week I find the bowels are moving regularly without stimulation. In the beginning of the treatment all medication is stopped, as these cases are all the victims of the physis habit, in order to test thoroughly the merits of this form of stimulation. In addition to the stimulation by the internal massage and dilation the gut is lifted from the pelvis and straightened to a degree permitting the hard scybalous masses to be dislodged from the flexures and saculi. The dilation also acts reflexly and increases the flow of bile, the natural stimulant. I have personally observed this feature while treating a case the cause of which was catarrhal jaundice. The same rationale may be ascribed to distending the colon alternately with hot and cold water. That the sphincter muscle becomes a factor in a production of some of the obscure symptoms as well as the contributory cause in the continuation of the disease in certain cases cannot be denied. This complication is overcome by the gradual dilation from the passage of the instrument for the colonic distension; only in rare instances where fissures exist that any other method of dilation is required. At the outset of the treatment at the close of a sitting the cap from the sigmoidoscope is removed and the mucous membrane of the rectum and lower sigmoid is sprayed with a 2 per cent. solution of silver nitrate. This has a mild stimulating effect and reduces the edematous condition of the mucous membrane, that is always more or less infiltrated from the irritation of the retention and passage of the hard fecal motion.

At this point I cannot refrain from digressing for a moment to the surgical aspect to discuss and pay my respects to the operation known as valvotomy, as it is in this class of cases that the majority of these operations have been done. The introduction of which was hailed with acclamation, but was too soon used without discrimination, with the natural result that the good features were soon overbalanced by resulting catastrophies. To be fair to the author of this operation, I will say that he does not claim merit for the operation, only in cases of true hypertrophy of the rectal valve, causing a real obstruction and narrowing of the gut. In such

cases I do not hold aloof. In my judgment this condition is so extremely rare that the field for this operation is very narrow indeed. In the beginning of my proctologic career I performed this operation twenty-five times by the various methods of incision, elastic ligature and pressure necrosis with the clips of Pennington and Gant, and one devised by myself. The results were excellent. I cannot recall a case that was not perfectly relieved, but the relief came after a systematic after-treatment, with dietary regulation along the lines I have just indicated. I have since successfully treated 100 cases by the mechanical means of the same nature, having exactly the same symptoms, the valve showing the same amount of resistance to the usual methods of testing for rigidity as in the cases operated upon. This forces me to the conclusion that we have no real benefit from this operation in these cases. Those that were benefited came by diligent after-treatment and a strict regulation of the diet and habits. I have considered no case cured under one year's standing, and the majority of them are from three to five years. It is my rule to keep these cases under observation for at least three months before putting them absolutely upon their own responsibility.

In conclusion I believe my experience is sufficient to justify me in saying that this method is a decidedly advanced one, and, if conscientiously carried out, you will have permanent results, provided you are sufficiently skilled to diagnose the form to which the treatment is applicable.

DISCUSSION.

L. J. Hirschman, Detroit: I want to express my appreciation for the work the doctor is doing along this line and say we have for some time past believed that is the only rational way to treat constipation; in other words, we treat a diseased condition due to over-straining and atonic condition of the muscular fibres of the large bowel, the treatment consisting of internal massage, local gymnastics with exercise. The doctor has brought out his method beautifully. There is little for me to add except to state I used the rubber bag which the doctor has mentioned in his paper on a large number of cases. In fact, there are over two hundred physicians in Michigan, Indiana, Ohio and surrounding states using this, that I am aware of, and from reports sent in to me from them I now have a record of over 1200 cases successfully treated by internal massage method without any medication whatever. These have run from a few months to over thirty years in duration—chronic constipation. I believe the doctor is on the right track in the treatment of atonic constipation, that is, internal massage without catharsis.

Dr. Teachnor: I have nothing further to say, only to thank the doctor for his expression of approval.

A STATISTICAL CONSIDERATION OF 600 GENERAL ANESTHESIAS.

BY ROBERT CAROTHERS, M. D.,
Cincinnati.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

About a year ago I conceived the idea that the administration of general anesthesia in the Good Samaritan Hospital, Cincinnati, might be improved if some definite check or record be compiled of the cases occurring in the institution; also that an instructive and interesting lesson could be learned from so doing.

A willing consent was obtained from the surgical staff and operators in the institution. All cases, both in the wards and private, were recorded and the internes or house doctors who serve for certain stated periods as the house anesthetists were entrusted with the work. Slips were printed, which, though not complete, covered the salient points in the administration of an anesthetic and were filled out by the anesthetist in charge of each case at the time the anesthetic was given.

The cases from which the tables are made constitute 10 months work from September 1, 1906, less the discarded cases which, for some reason, the record was not, or could not be complete or thorough. After such culling it was found that something slightly more than 600 cases remained and for the purpose of easier mathematical calculations the first 600 cases were used.

The tables were made by an outside man who was interested in neither operation or anesthesia; the object in doing so, was that no personal prejudice or preference would enter into the compilation.

The anesthetics were administered by five different internes, each serving for a stated period as anesthetist, which has been the custom of the house, and in number are represented in Table No. I.

Dr. Neal	200
Dr. Heterick	185
Dr. Caldwell	135
Dr. Rockhill	46
Dr. Webber	34
	<hr/> 600

I wish at this time to thank these gentlemen for the work they have done and the assistance they have rendered me.

The sexes are represented in Table No. II.

Males	258	43%
Females	342	57%
	<hr/> 600	<hr/> 100%

The two anesthetic agents, chloroform and ether, were used. The chloroform was used in the usual method, dropped on an Esmarch mask. The ether was used in three different methods, the so-called closed cone, the preliminary nitrous-oxide gas followed by ether in the Iglaue inhaler, and the open drop ether which not unlike chloroform is dropped on the Esmarch mask.

The number and percentage of each is represented in Table No. III.

Chloroform	71	11.8%
Gas ether	103	17.1%
Closed cone	168	28.0%
Drop ether	259	43.1%
	<hr/> 600	<hr/> 100.0%

In the cases in which the drop ether was used, the large majority of them were given on the operating table in the operating room. The other methods were, in the majority of cases, used in an anesthetic room adjoining the operating room; and, after the anesthetic became complete, the patient was removed to the operating room and table. The particular plan was followed according to the fancy of the operator.

The various regions of the body operated upon and the particular locality or operation is represented in Table No. I.

Head:

Eye	10
Brain	3
Face	8
Neck	15
Thorax	12

Abdomen:

Liver	3
Gall bladder	13
Stomach	6
Intestine	17
Appendix	63
Hernia	14
Kidney	15

Extremities:

Amputations	45
Fractures	35
Dislocations	10
Orthopoeic	40
Gynecology	186
G. U.	10
Malignant	20
Unclassified	75
	<hr/> 600

It seemed very desirable that as careful a record of the vomiting as possible be obtained, and, for the purpose of simplifying this record, the vomiting was divided into three periods.

- 1—Vomiting occurring on the table during the operation.
- 2—Vomiting occurring the first 12 hours following operation.
- 3—Vomiting occurring more than 12 hours after operation.

The three periods are designated during after and remote in the order above named and are presented completely in the following Table No. V.

Vomiting—Drop Ether:

No.	(During.)	Yes.
234		25
90.3		9.7
	(After.)	
190		96
73		27
	(Remote.)	
237		12
91.1		8.9

Closed cone ether:

No.	(During.)	Yes.
148		20
88.7		11.3
	(After.)	
71		97
42.3		57.7
	(Remote.)	
144		24
83.3		16.6

Gas ether:

No.	(During.)	Yes.
93		10
90.3		9.7
	(After.)	
69		34
67		33
	(Remote.)	
82		11
89.3		10.7

Chloroform:

No.	(During.)	Yes.
67		4
94.3		5.7
	(After.)	
56		15
79		21
	(Remote.)	
68		3
95.8		4.2

The time consumed in each method of anesthesia is divided into three periods.

I—Time from beginning of the anesthetic to the beginning of the operation.

II—Time during operation.

III—Time consumed in coming out of the anesthetic.

The average time consumed in each period with the average amount of anesthetic in each method is given in Table No. VI.

Drop ether:

To operation	8.5 min.
During	56 min.
Coming out	23 min.
Amount	132 grams.

Closed cone:

To operation	12 min.
During	70 min.
Coming out	57 min.
Amount	208 grams.

Gas ether:

To operation	9 min.
During	70 min.
Coming out	34 min.
Amount	98 grams.

Chloroform:

To operation	8 min.
During	48 min.
Coming out	26 min.
Amount	38 grams.

The condition of the patients varied from the most robust upon whom, possibly, a trivial operation was done to the very weakest, emaciated and debilitated upon whom, possibly, a very severe and long operation was performed.

The urine was examined in each case and a separate record was kept of the same. I am unable now to give any statistical report on the result of such examination, but I can say that there was not one case in which a diseased kidney occurred from the anesthetic following the operation.

There were three cases on account of the gravity of which some special mention should be made.

One case, a young woman, emaciated and debilitated, upon whom an operation for badly diseased ovaries and tubes was imperative. The operation was long and tedious and the patient died on the table near the end of the work. Ether was the anesthetic and closed cone the method.

The records show that her heart had ceased beating many seconds before she ceased to breathe. Every effort was made to restore her with no avail.

Another closed cone ether anesthesia died on the table. The patient was a negro, who, some three weeks previously, had received a stab wound in the stomach. An inflammatory adhesion had quickly walled off the opening from the abdominal cavity; but the sinus formed allowed all food taken in the stomach to quickly pass, so that the patient was practically starved to death, when he went to the operation. The element of fright which often occurs in the negro race was quite pronounced in this case.

The anesthetic had really not commenced, not more than two inhalations of ether taken when the patient's heart ceased to beat. The respirations in this case continued several seconds after the alarm was given, but the ordinary efforts at resuscitation were futile.

The third case was a bartender and heavy drinker. The operation was suturing a fractured patella. On the third day following the operation he died of an ether pneumonia. Drop ether was the anesthetic.

I regret that the number of cases is not greater and it may be that points of importance may have been overlooked. This work will continue and at some future time a paper may be written which will be of more value from a statistical viewpoint because many more cases will be studied. I also feel that the work inaugurated will have a very beneficial effect on the anesthetists in instilling caution, care and a better efficiency in their work. There are lessons learned and conclusions drawn which are apparent to you all.

DISCUSSION.

Dr. Metzenbaum, Cleveland: In America ether is the anaesthetic of election and the manner of giving by the drop method. In this form the ether is given in the same way as chloroform, the Esmarch drop on the cone. It does not require over eight or nine minutes to place the patient under the anesthetic. The amount consumed in this method is less than that consumed by the closed cone method. The patient is always perfectly under the influence, but not past the danger mark as seen frequently in the closed cone and the chloroform method. He frequently will awaken before leaving the operating room. The amount of post-anesthetic vomiting is less than in the cone method and frequently not greater than by the chloroform method.

I think throughout the country there is a specialist developing—the anesthetist specialist, who will soon be recognized as important second only to the surgeon himself. Not only in my own locality, but I think in many places surgeons are being forced to employ a specialist for this work.

In the hands of the average individual, the ether drop method, which allows the greatest amount of air to be mixed with it, is the safest and most economical method.

Contrary to the usual opinion that ether can not be given with great safety to children, I have a great many coming to me, many for orthopedic operation, frequently when only a few days old, and unless the water is very bad the ether by the drop method is given with the greatest safety, and the fear for ether pneumonia is not greater than with chloroform. I know that throughout the United States this is rapidly becoming the universal method.

Dr. Grube: I can only coincide with Dr. Carothers in his details and confirm them. I only rise to speak of what is called the new method. About twenty years ago J. C. Reeves issued a reprint, advocating what he called "mixed anaesthesia," which was nothing more than giving morphine and atropine an hour before the operation, and the reason he gave it was the same that we now give the hyoscin and morphine and he got the same results, and these results are worth having. It does away with that nervous dread in nervous people; and then it does away with the mucus accumulation in the air passages; and, best of all, for an hour to three hours after a serious operation, the

patient lies quietly sleeping all of the time. There is no tossing about, and the nausea is diminished to a great extent, and I believe it is a correct practice to follow.

Dr. House: I would like to ask if he has used the method of Deaver, of Philadelphia; that is, administering oxygen the moment surgical anesthesia ceases; and what is the result as to post-operative nausea and the rapid recovery of the patient from the anesthesia?

Dr. Harrison: The drop method has been in effect at St. Vincent's Hospital in Cleveland for five years. We find that it requires a less amount than the cone method. We find that the after vomiting is much less frequent, and patients recover from it easier than by the cone method; and as for ether pneumonias, they are very rare. They do occur, however, but not so frequently as in the former method of using the cone.

S. P. Kramer, Cincinnati: I would call attention to the use of an agent in these cases of cardiac paralysis or shock during the administration of ether. I refer to the use of amyl nitrite, as recently advocated by Mielberg and by myself in the Journal of the American Medical Association in the past few weeks. Animal experimentation shows always that when the ether is put directly into the circulation the death is always by cardiac failure; and by the use of amyl nitrite very often a dose usually lethal to the animal proves not to be so. It has been recommended for this before. I do not think, however, that the physiological investigation has been made. It has been objected that amyl nitrite acts in the same way and lowers the blood pressure as does ether, and for that reason it has been cast aside. But the unloading of the heart that goes on from its use is of benefit in these cases of ether heart poisoning, and I believe we should have with us amyl nitrite during the administration of ether; it is readily handled in pearls, and where the heart fails it can be readily administered by inhalation.

Dr. Reynolds, Defiance: I would like to emphasize the remarks in regard to the giving of hyoscin. It seems to me it requires less ether after the use of that.

I also wish to speak of the use of the stomach tube at the close of the operation. I have not tried it myself, but I have seen it done, and it seemed to take away all the after vomiting and there has been practically no post-anesthetic vomiting after the use of the stomach tube.

Dr. Carothers, closing discussion: I have nothing to say except to thank the members for their attention during the reading of the paper and also for the discussion.

An impacted fracture of the neck of the femur may be broken up by severe manipulation, and a patient that would have had a useful limb may be quite completely disabled for life, for an impacted fracture of the neck of the femur is the best setting of the bony fragments that a surgeon can have.—Senn.

WHAT THE PROFESSION MAY DO IN
MATTERS OF STATE.

J. MORTON HOWELL, A. M., M. D.,
Dayton, Ohio.

[Read before the Ohio State Medical Association, Cedar Point.]

From time immemorial, people of all lands and climes, civilized and uncivilized, educated and uneducated, have sought in the assuagement or surcease of sorrow, pain, sickness, and even death, the intervention of the supernatural. It would appear to be an inbred characteristic of the human race, those who are and have been benighted, insofar as the Christian religion is concerned, are as loyal and fervent in their worship and compliance to what they regard as the supernatural as we of the Christian faith.

To the student and believer of the Bible, both old and new, there is ample proof of the direct influence of the supernatural in the dealings of Jehovah with his people in all departments of life and even in death.

But those of us who believe in the authenticity of the Bible are to remember that the entire original plan of the Creator regarding its treatment of the human race was completely changed by disobedience of law upon the part of the highest creation—man. Hence it became necessary upon the part of the Creator to establish a new kingdom with new plans and His omniscience saw a race whose tendency to disobedience was to be reckoned with. To establish this kingdom, God found it necessary to resort to what I think might with propriety be called the lowest form of action to prove His supremacy—ocular demonstration. The people for the most part were unable—at least unwilling—to accept the working of natural law and such other teachings as were given them by the appointed teachers of God and it seemed essential that some literal, ocular demonstration be made from time to time to convince them (the people) of His authorship. Hence, we have numerous recorded examples of direct answer to prayer, which might be regarded as supernatural or a departure from natural.

Upon one occasion the people had gone off almost into universal polytheism (idolatry) and they were finally brought to a realization of Monotheism—one supreme, eternal, omniscient, omnipresent Ruler, by the consuming fire at the altar. Again, at a particular time, when a great host was being lead by Moses and there was great dearth of water with which to quench the thirst of the multitude, this leader was commanded by

God to smite the rock in a certain slope of the mountain or hill in which or around which they were encamped. Obeying, cool, refreshing, sparkling water burst forth. The parting of the Red Sea, permitting the Israelites to pass dry shod to the opposite bank of the river, and the awful punishment of the many Egyptians in pursuit; the miraculous interposition of God through Elisha in the restoration to health of the general in chief of the armies of the King of Syria, Naaman, who, after carrying out the instructions of the Prophet Elisha, bathing in the Jordan seven times, was fully restored from leprosy; then, later on, the miracles of Christ and His apostles in restoring sight to the blind, hearing to the deaf, contractility of muscles and ability to walk to those paralyzed, speaking but the word to abate a fever and control a hemorrhage of years' standing; finally, restoration to life to those dead, as in the case of the daughter of Jairus and Lazarus.

I am not here to question the authenticity of the teachings, beliefs, or supposed truth of either the Old or New Testament, notwithstanding the scholastic adverse criticism touching these things by such men as Spencer, Renan, Spinoza, Heckel, and others of master minds. I shall content myself with the belief that "The prayers of the righteous availeth much" and that "God doth move in mysterious ways his wonders to perform." To me the so-called miracles are insignificant as compared to the perfect order and exactness with which the great planets with their solar systems obey this law. To believe consistently and sanely in an omniscient and omnipresent God is to believe in this natural law; not as the Pantheist believes—but that, while God is in all nature, He at the same time is a personality—the first Cause.

I desire to declare that in my opinion, based on observations, personal contact and conversation with physicians, that it is the great exception to the rule to find a scholar today in the medical profession who is not a profound and consistent believer in Jesus Christ as the Son of God, recognizing Him as the Great Teacher and thoroughly capable, by reason of His equality with God, to do the things recorded of Him. It is inspiring, therefore, to those of us who so believe, to find, after the lapse of almost two thousand years, in the greatest medical department or hospital in the United States and perhaps in the world (Protestant, Johns Hopkins) a statue some eighteen feet in height, of the Christ, with the inscription at its base, "The Great Physician." This statue is the reflection of

the sentiment, feeling, and belief of the entire profession.

To so view Divinity, His plans, His followers, and His teachers, such as Moses, Elisha, Job, Daniel, Peter, Paul, Luke, the physician, and John the Baptist, is to eliminate necromancy, charlatantry, and quackery in every form.

Dowieism, Spiritualism, Christian Science, Osteopathy, Holy Rollers, and all other nonsensical 'isms, according to Moses, "All that do so practice these things are an abomination unto the Lord, and because of their abomination the Lord thy God doth drive them out from before thee."

Permit me to call your attention to the fact that in all the recorded ages Jehovah has selected men to represent His cause, doctrines, and kingdom from the most stalwart men, morally and intellectually, of the age in which they lived; and for a moment, if you can do so without sacrilege, compare the list of men whose names I have just read as Bible leaders and teachers, with John Alexander Dowie or Mrs. Eddy, of divorce fame, whose great wealth, extracted from her followers, together with her sanity, was only recently inquired into by the court. Compare the founder of osteopathy, if your intelligence will permit you such a comparison, with Aesculapius, Pasteur, Harvey, Lister, Morton, Koch, Klebs, J. Marion Sims, and thousands of others who have devoted their lives to scientific work for the good of humanity that those who followed after them might be an added blessing by making use of the product of their discovery.

Dowieism is now hardly worthy of consideration, for in vitality it only differs from its founder in that the latter is dead and his 'ism is in the last throes which come before final dissolution. Dowie was an imposter of imposters. He had energy, executive ability, a certain kind of sagacity, and a brazen effrontery not unlike that of Mayor Schmitz, of San Francisco, who on the eighth day of July received a sentence from Judge Dunne to five years in the penitentiary for extortion. Dowie left earth before sentence by court was passed upon him and will yet, we trust, receive his just reward. Christian Science, one of the most dangerous, demoralizing and enervating fads that has yet come to the surface, is still virile.

This fad or 'ism is dangerous because of certain truths that have been juggled with falsehood, which fact makes it in some respects difficult to refute. The name, Christian Science, is misleading, deceptive, dangerous—a misnomer, as Rev. Dr. M. E. Wilson pointed out in his article

in the press, "It is neither 'Christian' nor 'Science.'" I challenge them to show a single solitary case wherein freedom from disease has been established through or by their efforts or practice, save as it has come by suggestion. All of us have recognized the greater ease with which a patient can be controlled when the mind is set at rest, when there is faith and hope held out by the operator directing the plans. It is but the assertion of the will of the patient assisted or brought out by the operator.

Some distinguished medical writer (I believe Osler) has recently said that he knows of no agent or force in the therapeutic realm so potent for good as prayer. As indicated, it places the supplicant at once in a receptive state and renders him amenable to treatment, whether such be physiological, or medical by drugs. Before leaving the subject of fadism as taught by Mrs. Eddy and practiced by her adherents, I desire to acknowledge that among her followers are some very excellent people—people of culture and intelligence.

A few years ago, in a certain city of this state, there was a club organized and known as the "Present Day Club." As its name implies, present day or current topics were therein discussed. Its membership comprised the elite intellectually of the city. It was arranged upon one occasion to have the subject of Christian Science discussed and two for, two against, the fad were selected to treat of its merits and demerits. Of the two former, one was a lawyer, a man of good literary training, having many virtues and no known vices. He has since served with some distinction as a state senator.

His address from a literary standpoint was commendable, and, had his hypotheses or basic principles from which he made his deductions been true, it would have done him great credit and would have been, too, of much value. I think I can best illustrate the worth or value of his deductions to cite you now to the one principle or reason upon which he based not a little of his faith upon this occasion—that of his own personal experience as a sufferer of some diseased condition of the kneejoint. He claimed that he had sought the best medical and surgical advice for some months, to no avail, and that now since he had become an advocate and believer in Christian Science the great pain and swelling had almost completely abated, and he was now able to walk without a staff or support. This, he contended, was wholly due to Christian Science. It was not more than two months from the date of reading this paper to which I have re-

ferred that I saw him going to his office so lame and leaning so heavily upon one crutch that the sight excited great pity. Since that he has been compelled to use two crutches, and is yet so lame and in such great distress that it is a most difficult problem for him to get on and off street cars or other conveyances.

Cases like or similar to this one, of course, could be multiplied. There always have been the Witches of Endor and the Sauls to follow them, and there perhaps always will be. They are scarcely reachable by law further than they heretofore have been reached. All we may hope to do is to raise each succeeding generation to a higher moral and intellectual status until the Eddys, the Dowies, the Schlatters and all other such benighted fanatics and hypocrites be lessened in number or eliminated.

Now we come to consider some things over which we may and should have control, and these are quack doctors, quack nostrums and quack medical schemes generally. Among the list is to be found the osteopath, and be it said to the everlasting disgrace of the Legislature which gave them the right of title, they are now denominated "doctor." Think of it! To give to a man this title and let him be associated in the minds of the laity as a physician equal to the man who has spent from four to six years of service in the preparation for the work of his profession.

As pointed out in a paper by the writer in 1904 before the State Society, the osteopathic idea is or was that all diseases or nearly all are the result of displacements of bones, which, thus displaced, press upon various nerves or organs and so give rise to manifold and varied symptoms. The only real virtue that is or can be afforded by this so-called school is that of massage and suggestion, and I feel loath to let two such valuable therapeutic measures as these suffer by such association. They deserve decent company. The very fact that the founder and leaders of this "ism" put aside as useless material all diagnosis except what they pretend to learn by touch, and throw aside as unworthy of their thought or attention bacteriology, chemistry and the normal and abnormal functions of the organs of digestion and assimilation, brands their one idea as unworthy of consideration.

Can you conceive how a truly learned and distinguished United States senator from the great state of Ohio could so prostitute and insult his intelligence and humiliate and disgrace the great army of medical men throughout the United States, numbering now more than 122,000, as to

attempt to have passed a special law or measure entitling these so-called doctors, osteopaths, to special consideration within the District of Columbia? Your conception of the merits as a legislator of this distinguished senator possibly might be without fruition if he is studied and judged from this one stand on public matters alone; but see his attitude on the pure food law and on other important legislation with all of which he has been at variance except the monied interests.

Compare the sayings of this senator, *outside and inside* the halls of legislation, with those of the present chairman of the Rivers and Harbors Committee of the House of Representatives, that brave, true and most able representative in Congress from the Cleveland district, Hon. Theodore Burton.

A few weeks ago I had the pleasure of listening to him (Burton) at the college over which that most distinguished, far-famed educator, Horace Mann, once presided, Antioch. During the course of his masterly address on "Pessimism," in which he clearly, by history and otherwise, demonstrated that the world in every avenue of life has and is making great strides upward and onward, he made this reference to the medical profession:

"One of the unfortunate tendencies of the time is the taste for that which is startling and sensational. That which is abnormal often occupies the general attention to the exclusion of that which is wholesome and sane. There are thousands of doctors in Chicago who go on their way alleviating pain, healing the sick, curing the maladies that flesh is heir to without thought of publicity or popular applause, thereby doing credit to a noble profession in its varied rounds of beneficence and self-sacrifice. But several years since, a member of the medical profession of that city, noted probably by the number of instances in which his treatment was the forerunner of a coroner's inquest, conceived the idea that there was no analogy into his confidence by saying that the use of water for bathing was not salutary; that he himself had not taken a bath for many years. Of course, he was entitled to his personal judgment about his own habits but strangely, for days his lucubrations were very widely printed, indeed, for a time he was attracting more attention than any member of the medical profession in the United States. Do not such incidents show that the popular taste is in need of education? Newspapers, which are very much blamed, would not print such material unless there was a demand for it from their readers."

Of all the parasites and leaches which feed and

fatten upon the general public, the quack doctors, quack nostrums and quack nostrum makers are the worst. They parade their brazen faces in the secular and sometimes so-called religious press, enumerating the miraculous cures "which, by reason of their exclusive scientific attainments and practices, worked out by themselves in the great medical universities of Europe," they have been performing. The writeups are an insult to pure and virtuous readers of the press which gives them space, highly injurious, and even death-dealing to those diseased in body and mind who fall into their snares.

In so far as I have been able to follow practitioners of this sort, they are without true scientific attainments. Their profession as to skill and ability to treat and cure disease is made up almost entirely of falsehood. Those who have mediocre ability and have had some advantages in acquiring an education, but who have without exception been failures in ethical practice, are found to be without principle, sense of justice or equity, willing to prostitute honor and their profession and add to the sacrifice of human life by parading themselves as eminent specialists greatly superior to the ethical man who does not so vaunt himself.

It seems unnecessary to cite illustrations of these flagrant writings, for our daily papers simply teem with them. Here is one, however, which is a fair example, clipped from one of Dayton's dailies:

"MY EXCLUSIVE METHODS."

"My exclusive methods are your greatest hope for a complete cure."

No true and honorable physicians today have "exclusive methods" of treatment of disease. To so announce is to at once proclaim the man so announcing an imposter and a libeler.

Under "Guaranteed Cures" he states: "I am the only *pelvic* specialist in Dayton who makes no charge unless the patient is entirely satisfied." But, while he announces himself as a "pelvic specialist," he states further on: "If you are afflicted with any blood disease, nervous and vital decline, piles, kidney, bladder, special and chronic diseases peculiar to man, you are wasting money and endangering your health treating with ordinary physicians and specialists." By "ordinary physicians and specialists" he would have the public believe that the educated and ethical medical men engaged in general practice and the honorable and painstaking real specialists, who have spent years of arduous toil in fitting themselves for their life work, are "ordinary."

I shall not attempt to name or further de-

scribe these men and their methods. They are vampires and leeches upon the body politic. They are well known to you. They should be dealt with as a dangerous class, false teachers, criminals if the obtaining of money under false pretense constitutes such. This false, indecent, pernicious and wholly disgraceful practice can *and should be prohibited by proper legislative enactments*. I respectfully submit the following measure to be considered by the Legislative Committee of our State Association and in turn by them submitted to the Legislature for enactment:

"THE MEASURE."

"Be It Enacted by the General Assembly of the State of Ohio: That whoever inserts or causes to be inserted, prints or causes to be printed, in the daily, weekly or religious press, or by circular or otherwise, a statement regarding the treatment and cure of disease which is known to be misleading, deceptive and universally (by medical authority) regarded as false, or who ascribes to a medicine, drug or remedy a virtue which is universally (by medical authority) recognized it does not possess, and whose object shall be shown to be one of deception to those afflicted in body and mind, and shall as the result of such deception accept pecuniary remuneration for such service, treatment, drugs, remedy or medicine, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be fined for the first offense, a sum not less than one hundred dollars or more than five hundred dollars or imprisonment in the county jail sixty days or both, at the discretion of the court; for the second offence the fine shall be a sum not less than one thousand dollars nor more than five thousand dollars, or imprisonment in the penitentiary one year or both, at the discretion of the court."

The county of Montgomery, from which I hail, has three members of the lower house and one in the senate who have the intelligence, the courage, and the sense of equity and decency so splendidly developed that none of them would hesitate to champion such a measure. I am optimistic enough to believe that what is true of the splendid representatives of my own county is true, in a large measure, of your own. Therefore, what we need today is to place this matter before them; and whenever you find a member who is opposed to such remedial legislation you can mark him as a grafter, and never make a single exception, and he then and there should be treated as a menace to healthy legislation and eliminated from politics. And in his stead, place a man (medical man preferred) who is thoroughly up-to-date on matters pertaining to the

good of the community and state in which he lives.

In this connection I beg to say, as has been pointed out by C. A. L. Reed, of Cincinnati, that physicians in this country have not taken that active interest in matters of state that it is their privilege and *duty to do*. For instance, in our upper house in the National Congress we have but one physician, Dr. Gallinger, of New Hampshire, out of a membership now of ninety. In the lower house in the fifty-ninth Congress we were represented by but three members of our profession—Barschfield, of Pennsylvania, Burton, of Delaware, and Samuels, of Pennsylvania. Here I desire to especially speak of the splendid service of Dr. Burton, of Delaware, in defeating the nefarious measure introduced by a very astute senator from a state of which I think we are justly proud. (I speak of our pride of the state, not the senator representing same.)

Now, when you contemplate that our sister republic of France, much newer than we in her present form of government, in her present congress has ninety-two physicians, and remember that her population in 1906 was 39,228,969 and that the number of her physicians is but slightly over 28,000, and then recall that our numerical strength in the same year was 85,000,000 and that the physicians in the United States number more than 122,000, the comparison and disparity to our own country and profession in the halls of legislation become all the more striking. The comparison should be further observed. Since the inception of the present form of government of this people, doctors have been in the forefront, not only in the halls of congress, but in the cabinets, as mayors and at this moment Dr. Clemenceau is the present able premier and has demonstrated in the recent severe test that he is a past master in handling and controlling the ship of state. There is no earthly reason why physicians should not occupy these places of trust and importance in this country.

I have no word of disparagement for the splendid legal profession, but by way of comparison in matters of training and education with that of our own, I desire a word to show that there is no reason why they should be advanced or preferred over our own profession. In the matter of preliminary education before entering either of the two professions, the demand upon the medical student in the past has always been equal if not greater than that of law or theology and at the present time we surpass them by great odds in our requirements. As regards law no collegiate course is required; to pass the state

examination board is the requisite and the only requisite for admission to the bar. It must, I doubt not, be shown both in the personal and in the manuscript of the applicant for such admission that he possesses a safe and sane knowledge of the statutes of the state in which he expects to practice before license is given. The same requirements obtain in admission to teach and preach theology, at least in most of the orthodox churches. But we are happy to state that in the matter of entering the medical and surgical fields a higher and broader plane obtains. There are no medical schools in Ohio today (regular) which admit applicants without a preliminary or literary training. They must possess a degree from some reputable college, possess a diploma from a recognized high school, or show a certificate for life issued by the state board for teachers. Two of our schools in the United States, Johns Hopkins and Harvard, will only admit students having a degree from a literary college, and the former, Johns Hopkins, requires reading knowledge of both German and French. If admitted, they have a curriculum which requires four years to complete and then they are submitted to the final test of the school. If passed a diploma is issued and again before being admitted to practice they must go before a state board for final examination; so that it must be apparent to every one that the physician of today is preeminently qualified to fill any position to which he may aspire in the political world, for his general as well as specific education surpasses generally that of his brother of the other professions. I am led to dilate on this matter owing to the seeming false impression of our profession by men in the high positions of state.

Those of us who have been keeping tab on the attitude of the executive and legislative branches of our country cannot help but feel that we have suffered not a little in our reputation by the apparent contempt in which we have been held and treated.

I need only to refer briefly, by way of illustration, to convince you of this fact. You remember in our war with Spain the scandal regarding the canned and preserved meats, the terrible mortality in some localities from typhoid fever, and our otherwise high mortality. The gentleman occupying the high position of secretary of war at that time, Gen. Alger, suffered by reason of his dearth of knowledge in dietetics and hygiene an irreparable loss to his reputation; it cost him his position and the contempt of his countrymen. This by no means constituted all the loss, for hundreds of our brave young sons

went down to death as the result of the misguidance along this line. I do not desire to ascribe any wrong intentions to Gen. Alger, for I believed then and now that he was acting to the very best of his ability and I was pleased to see that, after he had been almost summarily dismissed from the cabinet, his own people of Michigan, who knew him intimately and well, gave to him the highest office within their gift, that of United States senator, which position he held until his death.

The trouble is and was that no such authority should be vested in the hands of men untrained in the knowledge of medicine and all that pertains to same. Recall, if you please, our mortality as compared with that of what our religionists please to call "benighted" Japan, in their war with Russia, if more proof is required to show that the army and navy regulations, insofar as the physical well-being of these departments is concerned, should be vested wholly in our surgeon general and a cabinet official, which latter should be a man of the highest rank in our profession and whose title probably should be that of secretary of health.

At the installation of this government, 1789, we had five executive departments, to wit: State, Treasury, War, Postoffice, and Justice. In 1798 the Navy was made separate from that of War. This gave to us six departments and with this number we continued for fifty years without change, when the Interior Department was added, and in 1889 the Department of Agriculture commenced operation, and under the leadership of that magnificent specimen of manhood, that fearless leader and wise statesman, that constant and successful champion of the right, Honorable Theodore Roosevelt, the ninth department, Commerce and Labor, was added in 1903; and should either he or that other safe, sound and wise statesman, Honorable William H. Taft, be elected, we shall, I thoroughly believe, have the tenth department added, that of Health. And to this department will be referred all matters pertaining to the sanitary condition of the army and navy. To this fountain source we may reasonably look for benefits to the people in general which will be beyond computation.

In this connection I desire to call your attention to the commission appointed at the suggestion of the president and the secretary of war, Mr. Taft, to investigate the sanitary conditions, etc., of our possessions purchased of the French, the Panama Canal property. You will remember that in the personnel of that committee Ohio was honored by the appointment of C. A. L.

Reed, of Cincinnati, ex-president of the American Medical Association, the present able and efficient chairman of the national committee on legislation. You doubtless too remember the severe arraignment which it was attempted to inflict on him by two very worthy statesmen, whom we all so love to honor and in whom we have the greatest confidence, by reason of his public published report and criticisms of officials by them appointed, which was presumed at the time too severe and castigating. But is it not refreshing and does it not give to each and every medical man in Ohio—yea, in the United States—a feeling of pride to know that, in every single particular, the criticisms, observations and recommendations of this skilled physician and surgeon, this twentieth century diplomat, this truly great man, who in reality is a veritable Clemenceau in medical matters as well as those of state, have been fully verified and his recommendations adopted.

Touching again on needed legislation, there is a terrible and widespread evil, which carries suffering and death in its wake, and in the control of which we as physicians, I fear, have not been as ardent as we should. I am sure that there is no infectious disease, not even syphilis or consumption, which brings with it the terrible onslaught to life and health as does this awful disease, gonorrhea. Not a few physicians have been inclined to treat the disease lightly; prognosis has been somewhat after the expressed desire of the individual suffering from same. The majority of cases which come to you, you will find, have had the disease for weeks, months or even years, and they have been trying all sorts of receipts which have been given to them by some chum, who got it from some other chum who was cured (?) in a remarkably short time. Physicians coming in contact with individuals suffering from this terrible malady should take the time to give such a dissertation upon the etiology, pathology and prognosis as the gravity of the case demands.

It should be borne in mind that no man who has indulged in promiscuous intercourse is a proper subject for matrimonial vows until he has subjected himself to the most crucial test for gonococci.

For it must be remembered that there are gonorrheas without any subjective symptoms; wherein the gonococi remain dormant only awakening into violent activity at the first opportunity, and newly married life affords such an opportunity.

On the third of July, this year, a woman twenty-seven years of age consulted me regarding her health. Her family history was first class in

every particular. She was married at the age of twenty-two to a man whom her good parents opposed. Up to the time of her marriage she had experienced no illness except those incident to childhood. Although she was but five feet two inches in height, she weighed 150 pounds at the time of her marriage. Within six months thereafter she began to fail in health. She couldn't state what part of the system then gave her trouble, but she remembers to have had an eruption which was more or less over the entire body, and she also recalls that it was not unlike a breaking-out which she observed upon her husband sometime before. In the meantime she had lost much of her hair, of which at the time of marriage she was justly proud. She recites a history of great suffering from her stomach and finally an inability upon that part of this important organ to perform its functions. At the time of my first examination, July 3, I found her thin of flesh, weighing but eighty-nine pounds, eyes sunken, complexion sallow, heart action rapid, 115, and respiration somewhat accelerated; some cough, no chills, night sweats or fever. The heart, respiration and cough, after examination, I thought more due to weakness than to pathology of the chest, although there was some bronchial rales, due as I believed to recent cold. She gave her history with difficulty, owing as I found to swelling and ulceration of the throat. The inflammation of the palate was most extensive and the vault so swollen that it was difficult for her to breathe through her nose. The ulceration of the tonsils and of the peritonsillar tissue was marked. There was no involvement, however, of the larynx. I couldn't agree with the two last physicians who examined her that she was suffering from tuberculosis. I believed, after my examination, and now know that this beautiful, pure, innocent, splendidly brought up girl is suffering from syphilis, contracted from her husband. From my conversation with him since, I cannot believe that he knew of the facts and would not have been guilty of this awful thing had he been apprised of his condition before marriage.

Can we do nothing? Should we make no further effort to control the spread of these death dealing diseases to innocent womanhood? In an article written by the writer and read before several medical bodies in 1906, I called attention to the Ohio statute in its provision on marriage and then suggested some needed changes. It remains the same today and reads substantially as follows, or has the following provisions:

It is incumbent upon the person making ap-

plication for a marriage license to answer under oath the following questions:

Name, age, residence, occupation, father's name, mother's maiden name, whether previously married and how often, and of the woman same questions with the addition, widowed or divorced. Name of minister must also be appended. It must be further certified that neither of said parties is an habitual drunkard, epileptic, imbecile, insane or under the influence of any intoxicating liquor or narcotic drug; that they are not nearer kin than second cousins. One, who has given the prophylactic measures of crimes or degeneracy and disease thought, must fully realize that while the law upon the statute books of our great commonwealth in so far as it goes is good, it falls much short of ideal.

It will be observed that nothing is herein said regarding the applicants having tuberculosis, which sweeps into an untimely grave forty per cent. of the mortality each year, or of the always present and never ending specific diseases, which are the source of so much suffering upon the part of the innocent wives and mothers.

It will be thus seen that we must have more stringent legislation along this line.

Applicants for certificate of marriage should be required either to furnish a certificate under oath from a reputable physician, or from a board of physicians appointed by the probate court in the county in which application is made for such license; that such applicants are free absolutely from all diseases above named, and then they should be made to show to the satisfaction of the court that they have or possess the ability to make or to secure a livelihood for themselves and family. Men or women who have been convicted of felonies and served time in the state penitentiaries without pardon by the proper state authorities, should in no wise be granted matrimonial license. No one will question, I think, the justice of such requirements when it is remembered that a man serving out a sentence for a crime without pardon loses thus his citizenship or rights of franchise, and certainly no one under such a ban or stigma has any right or should have, moral or legal, to train the capacity of a husband and a father.

Instead of something like eighteen legal causes of divorce in marriage, there should be perhaps not over three or four causes, and no person who has been divorced on two different occasions should be allowed to remarry. The practice is baneful upon the influence of parties directly concerned, blighting in its effect upon their

progeny and upon humanity at large, demoralizing.

With this provision, and with conscientious, consecrated, up-to-date medical men giving such dissertation to patients as the case in its gravity demands, we shall perform a work which will last and bear fruit throughout eternity. Medical men are awake today as never before in the history of the world. We are now organized in every state and territory within our borders. Yes, and when the tocsin of war or alarm is given we reach out in our organization to the most distant county, city, town and hamlet in the United States.

We have much of which to be proud—our own dooryards are rapidly cleaning—with our high and constantly growing higher standard of preliminary education, the forced elimination of schools whose published records are shown below standard and whose graduates are found unable to pass state boards is bringing only men into the profession of the higher, better type. National, state and municipal authorities are seeking the counsels of medical men in the control of matters pertaining to public health as never before.

It is now clear why President Roosevelt was so much interested in the election of ex-Postmaster Busse, of Chicago, to the mayorship of that city. He (Busse) had demonstrated before his appointment to the postmastership and while holding this important office that he was a man to be trusted and would therefore act in conformity in his official life to the best interests of the people. Recently, when the politicians and ward heelers were clamoring for the spoils and it came to the appointment of a health officer, he said, substantially, "No health officer will be appointed for the city of Chicago until the most skilled physicians and surgeons are consulted and a recommendation is made by them." Accordingly such men as Billings, Senn, Murphy and some eighteen others of the prominent men of the city were consulted and a recommendation made by them and an appointment made in accordance with said recommendation.

Had I the time I should like to discuss the importance of further medical inspection of our schools from a sanitary standpoint, laws regulating child labor, and dilate upon the duty of the profession—and the duty they are in so many localities performing—in securing to the public pure milk and its products, thereby reducing the mortality, among infants and children especially. However, we are awake upon these propositions and notable executions of plans all over the state

and United States are telling in the reduction of mortality statistics.

Several distinguished judges of the courts with whom I have conversed lately along the lines of remedial legislation have said: "Members of the laity have no conception of the awful risk to health and life they are encountering in the matter of infectious diseases; and when you convince members sent to the legislature of the facts no tide of opposition can be sufficient to prevent the adoption of laws, and their execution by the courts, that will bring about desired results along these lines."

The day is not far distant when the "white plague," like yellow fever, diphtheria and small-pox, will be completely under our control and our practice will be confined to prophylaxis and physiological therapeutics. A united profession with the help of an intelligent laity will hasten the day.

It so happens, gentlemen, sometimes that we do not get the degree of credit which perhaps belongs to us. Only the other day (1860), I had a handsome present sent to me from a young lady of a pair of crutches which I had lent to her some four or five years ago. She had then severe disease of the hip joint. I gave myself a great deal of trouble about her, and I believe I placed her joints in a comparatively healthy condition. Her note to me was—her compliments, and she sent back the crutches, having *got* well after five months' treatment under a distinguished rubber at Brighton.—Hilton on Rest and Pain.

Traube's semilunar space is bounded above by the diaphragm and apex of the heart; upon the right side by the left lobe of the liver, and upon the left by the spleen. The upper boarder forms a semicircle. Normally this space has a well-marked tympanitic note on percussion. In a left-sided pleural effusion the space is encroached upon by gravitation of the fluid downward, and gives place to a dull or flat percussion note. The base of the left lung when consolidated does not give rise to any change in the percussion resonance, hence its import in making a differential diagnosis.

Broadbent's sign is due to adhesions of the pericardium to the diaphragm, and occurs in adhesive pericarditis. There is a well-marked systolic retraction of some of the lower ribs on the lateral or posterior aspect of the thorax. It is a favorable sign and shows compensatory hypertrophy.

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THE COLUMBUS MEETING.

The time for the annual meeting of the State Association is at hand, and all indications point to a "record breaker!" The interest in organization work has grown rapidly and spread widely during the past year, and, judging from the number of inquiries and expressions of intention to be present, this meeting will be the greatest in our history.

Columbus has been making great preparations in anticipation of this event, and stands ready to do its part for the comfort and entertainment of the medical profession. Through the Journal the Columbus Academy of Medicine urges the entire medical profession to lay aside its care and worry for a time and to come to Columbus for the 6th, 7th and 8th of this month. It says:

"You will give joy to me, and I will do
All that is in my power to honor you."

There are several reasons why every physician in active practice should attend these meetings. In the first place, if he

is a member of the State Association, his interest and loyalty should bring him. If he is not a member, he ought to investigate and find out what the organization of the medical profession means, what it is doing, and thus see if he can afford to keep out any longer.

In the second place, every doctor ought to help just that much by being present and pushing "the good work along," as the larger and more representative these meetings are, the greater their influence.

In the third place, a large number of essayists are writing carefully-prepared papers which are bound to contain matters of considerable interest to the earnest practitioner of medicine. In addition the discussions will accentuate and bring out new points of value.

Fourthly, this year the division into sections will provide for the interest of specialists and practitioners of widely-differing predilection.

Fifthly, there will be some very distinguished guests who will address the meeting.

And, sixthly, there is such a thing as getting into a rut, and "all work and no play makes Jack a dull boy," you will find it pays in the long run to take this sort of a relaxation; you will get many good scientific and practical points that will help you to practice better medicine, and you will also have a very good social time.

Topographically, Columbus is ideal for such a gathering. Railroads center here from all parts of the State, and with the present two-cent rate, it is a matter of little expense to make the trip. The hotel accommodations are ample and comfortable; in addition a list of good boarding houses is being prepared.

Come and bring your neighbor, member or non-member. This is "the last call." Everybody come!

AS OTHERS SEE US.

We are glad to note the increasing number of articles in the magazines and editorials in the newspapers, bearing upon various phases of medical questions and the medical profession in general. Too long has the latter maintained a policy of reserve and aloofness; many mistaken ideas have gained a certain vogue, fostered by interested parties, with the result that the usefulness of the profession is impaired and its motives impugned.

While the majority of thinking people will recognize the animus that prompt the onslaughts of the faith healers, Christian Scientists, Holy-rollers and others of the same character, and especially the quack medicine proprietors, at the same time by cunning sophistry and frequency of repetition it is possible to deceive "the very elect."

Therefore, it seems to us that the medical profession owes it to itself as well as to the ends it has in view, to encourage the writing of popular articles, which shall educate the laity to what practi-

tioners of medicine have done for humanity in the past, what they are doing now and what they hope to do in the future. Not that we think that the medical profession needs any justification, or that the attacks of detractors should be noticed, but simply that the facts be presented for impartial consideration. As illustrations, we would refer to Appleton's Magazine for April, where two very readable and temperately-written articles appear, entitled, "The Righteousness of Doctors' Fees," by George C. Lawrence, and "The Hell of War," by Louis Livingston Seaman. Of the former little need be said; it is too familiar and tender a subject. It is just as well for the public, however, to have a little plain talking to, and to learn of the other side of the question.

The second article relates to the deplorable conditions of the medical department of the United States Army as shown more especially in the Spanish War, owing to lack of authority of the medical staff. We can never as a profession look back upon that war, especially since the wonderful efficiency of the Japanese service in the war with Russia has demonstrated what an untrammelled medical department can really accomplish, without a feeling of national disgrace together with impotent rage at sickness and death which occurred which could have been prevented had it not been for the asinine actions of many of the arrogant line officers.

Apropos of the recent order of President Roosevelt detailing a hospital ship under the command of a medical officer, we overheard a former captain of a military company which saw three months' service (in camp) during the Spanish war, declaiming against the yielding of any such authority to a mere medical officer and exclaiming, "You have no idea how much trouble the d—d doctors gave us at camp ———!" The company in

question had about half of its quota of members down with typhoid fever and several deaths ensued. The captain, a very estimable gentleman, and only a type of many who are simply the result of the system in the army, instead of being welcomed back as a hero should really have been reprimanded for improperly providing for the welfare of the troops under his charge.

The necessity for arousing greater interests in such matters unquestionably exists, and the need for a national bureau or department of health becomes more apparent every day.

It would be an excellent plan to have this number of Appleton's on one's table in the waiting room, or to send out a few copies to people who complain of their bills. The proprietors are making a special offer of four extra copies of this April issue to new subscribers, and it is hoped that they will receive sufficient encouragement from the medical profession to continue articles of this sort.

VIVISECTION AGAIN.

Some eight or ten years ago the medical profession was considerably disturbed over the efforts of that class of well-meaning people who do so much harm in the world by their misdirected zeal in meddling in things they do not understand, which in this instance happened to be vivisection. The anti-vivisectionists, so-called, were stirred to the very depths of their morbid imaginations and started a propaganda of "reform," in which the public was regaled with lurid tales of reputed cruelties practiced by scientists and teachers, seemingly chiefly for their own gratification, which would cause the Apache Indian of the dime novel to blush with shame at the comparative feebleness of his efforts in the gentle art of torture!

At that time the aroused profession

stated the real facts of the case, appealed to the common sense of the public, and showed how great a loss to the cause of mankind would be the proposed adverse legislation, and was thus able to defeat overwhelmingly the efforts of these zealots of sentimentalism. Little has been heard of the subject for years. Even the *New York Life*, a one-time popular and rather humorous magazine, dropped the cause for more profitable and popular objects for its vitriolic wit. Recently, however, the campaign has been reopened; apparently the serpent was only scotched, not killed, and again must the medical profession explain away the false statements made by these misguided individuals—who "strain at a gnat and swallow a camel"—and prove that even scientists may be actuated by the same humane instincts as ordinary people. During the present session of the New York Legislature a bill has been introduced to restrict vivisection, which would, if passed, seriously cripple original investigations, especially in the study of serum therapy. It is needless to dilate on what vivisection has done for the relief of human suffering and for the advancement of medical science. To prohibit it, would be a return to empiricism, pure and simple, while to restrict it as proposed by this New York bill, would be a serious blow to the brilliant progress which is being made at the present time.

While there seems to be no immediate likelihood of our meeting this question in Ohio, nevertheless we may be called upon to do so at any time, as these sentimental, neurotic individuals are exceedingly prone to suggestive activity. It would therefore be just as well to discount any such action by quietly educating public opinion in advance as the opportunities arise, by frequently drawing attention in ordinary conversations as well in popular articles to what has been accomplished by animal

experimentation, and especially what measures are taken to prevent the infliction of pain and suffering.

The word vivisection has intrinsically a most unpleasant sound, and probably many members of the profession are not familiar with the many safeguards around animal experimentation, so that it may be just as well to quote some of the rules in force in the Johns-Hopkins laboratories, which were particularly attacked by the anti-vivisectionists. "Animals admitted to the laboratory shall receive all possible consideration for their bodily comforts and their surroundings shall be kept in the best possible sanitary condition.

"In all operative work conducted in the laboratory the same aseptic precautions shall be taken, and the same efforts made to avoid the infliction of any pain by the proper use of anesthesia that are observed in a hospital for human beings.

"No operations or experimental investigations shall be undertaken except with the sanction of one of the directors of the laboratory, who shall hold himself responsible for the fact that the procedure is justified by the end in view, and that it is performed in such a manner as to minimize all discomforts, particularly in those cases in which the animal is allowed to recover from the anesthetic."

For further information we may refer to Paget's "Experiments Upon Animals," G. P. Putnam's Sons, New York, 1903; to Ernst on "Animal Experimentation, a series of Studies Indicating Its Value to Biological and Medical Sciences," Little, Brown & Co., Boston, 1902; to First, Second and Third Reports of the Royal Commission on Vivisection—Minutes of Evidence, Wyman and Sons, Ltd., London, 1907; Senate Document 26, 56-1, serial 3868; "Hearing before the Senate Committee of the District of Columbia, February 21, 1900, on S-34, for Future Prevention of Cruelty to Animals in District of Columbia."

Collier's Weekly has taken its usual broad-minded view of the subject and in forceful editorials has discussed the dangers of such adverse legislation, and gives the following wholesome advice: "Let our sensational newspapers and our excited friends busy themselves with the millions who are needlessly in pain, and keep their hands off that profession which is doing most to lessen the suffering of this world. A law opposed by all competent doctors in the world is a foolish and harmful law to pass."

This is a case for the proverb, "A stitch in time saves nine."

THE COLUMBUS MEETING

Columbus needs no introduction to the members of the Ohio State Medical Association.

Three times in the last nine years has the city been chosen as the meeting place, and the wisdom of such selection has always been shown by the ever increasing attendance. Topographically Columbus is ideally situated for the purpose; railroads and interurban electric lines center here from all parts of the state, making it easily the most accessible of all available cities of Ohio.

This year the Memorial hall affords facilities

for housing the general meetings, sections, house of delegates and exhibits under one roof in a manner that has never been possible before, and which is probably unexcelled anywhere in the state. This hall is situated on Broad street, between Fifth and Sixth streets, within easy reach of the hotels and railway stations. The accompanying cut gives a good idea of the frontage of the building, but not of its depth and capacity.

The members of the various local committees will be on hand ready to assist in every way possible in arranging for the comfort and convenience of the visitors.



MEMORIAL HALL

SPECIAL ADDRESSES.

There will be several distinguished guests of the association this year. Robert T. Morris of New York City will deliver the address on surgery and the members will look forward with lively anticipation to hearing this well known surgeon. The address in medicine will be given by our distinguished fellow citizen, F. Forchheimer of Cincinnati. He is too well known to need further mention save to say that this address will unquestionably be of great practical interest and the association may congratulate itself.

Hugh H. Young of Baltimore will give the address on Genito-Urinary surgery.

Dr. Young is probably most widely known from his extraordinary results in prostatectomies and in addition to his skill in this direction he is the possessor of a broad grasp of his entire specialty, and is probably one of our foremost men along such lines in this country today.

His address promises the association an unusual treat, and should bring out a large attendance.

Wendell C. Phillips of New York will give the annual address to the section on Eye, Ear, Nose and Throat, and all practitioners of these special subjects will be exceedingly well repaid for any efforts they may make to be present.

BANQUET.

The banquet this year will be rather a departure from the usual plan. It will be held at the Liederkranz hall, 335 South High street, on Thursday evening, the seventh of May. The tickets will be \$2.00 and will be on sale only up until Thursday noon. A very delightful menu has been arranged, and instead of the usual after dinner speeches, an unusual and thoroughly diverting entertainment has been provided.

All members are urged to secure their tickets early, so that the committee may provide for the proper seating capacity.

The lady members of the association are expected to attend and will be provided for.

Especial attention is drawn to the fact that the meeting opens Wednesday morning at 9:30. It is earnestly hoped that members will come early and arrange to remain throughout the entire session.

THE SIXTY-THIRD ANNUAL MEETING
OF THE OHIO STATE MEDICAL
ASSOCIATION, MAY 6, 7, AND
8, 1908, COLUMBUS.

COMMITTEES.

Arrangements.—Wells Teachnor, Chairman.
Chas. J. Shepard, Secretary.
R. Blee Smith, Treasurer.

Reception.—C. M. Taylor, Chairman.

C. F. Gilliam, F. O. Williams, J. E. Ed-
minston, C. M. Waters, J. D. Dunham, A.
Timberman, Grace Welsh, R. V. Combs,
M. F. Blackburn.

Information and Registration.—R. C. Tarbell,
Chairman.

S. S. Wilcox, King Norris, J. U. Barnhill,
V. A. Dodd.

Exhibits.—S. J. Goodman, Chairman.

Fred Fletcher, E. W. Euans, H. Hoppe,
J. M. Thomas.

Pathological Exhibits.—J. J. Coons, Chairman.
Fred Fletcher, J. U. Barnhill.

Halls.—C. L. Harrod, Chairman.

E. M. Gilliam, I. B. Harris, Joseph Price.

Entertainment.—P. D. Shriner, Chairman.

J. F. Baldwin, W. D. Deuschle, Louis
Kahn, Carl Spohr, J. G. Alcorn, C. E.
Turner.

Finance.—F. F. Lawrence, Chairman.

J. M. Dunham, J. W. Clemmer, C. C. Ross,
W. C. Davis.

Badges.—J. E. Brown, chairman.

N. P. Oglesby, F. W. Blake, D. L. Moore.

RAILROAD RATES

From all Points in Ohio—Two Cents Per Mile.

REGISTRATION.

Each member in attendance shall enter his name on a registration card, indicating the Component Society of which he is a member. When his right to membership has been verified he shall receive a badge, which shall be evidence of his right to all the privileges of this session. No member or delegate shall take part in any of the proceedings of this session until he has complied with these provisions. Only bonafide members will be admitted to entertainments.

PAPERS.

No address or paper before the Association, except those of the President and Orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor, except by unanimous consent, more than once on any subject.

HOTELS.

The Chittenden, American Plan, \$3.00 to \$6.00 per day.
High and Spring Streets.

The Great Southern, American Plan, \$3.00 to \$5.00 per day.
Headquarters, High and Main Streets.

The Neil House, European Plan, \$1.50 to \$3.00 per day.
High Street, opposite State House.

The Hartman—European Plan, \$1.50 to \$6.00 per day.
Fourth and Main Streets.

The Vendome, American Plan, \$2.00 to \$2.50 per day.
Third Street, opposite State House.

The Northern, American Plan, \$2.00 to \$3.00 per day.
North High and Goodale Streets.

The information and Registration Committees will have a list of boarding houses in the neighborhood of Memorial Hall.

RAILROADS AND INTERURBAN LINES.

Columbus may be reached from nearly every part of the state by direct or connecting railroads or interurban electric cars, arriving at convenient hours for attendance of the meetings.

PLACE OF MEETING.

All sessions, the general meetings, the various sections, House of Delegates, pathological exhibit,

Auxiliary Committee, and exhibits will be held in the Franklin County Memorial Hall on East Broad street, between Fifth and Sixth.

The registration and Secretary's office will also be in the foyer of Memorial Hall. The registration office will be open daily from 9 a. m. to 12 noon, and from 1 p. m. to 5 p. m. The State Secretary's office will open at noon daily for one hour.

PROGRAM.

WEDNESDAY, MAY 6TH.—9.30 A. M.

GENERAL SESSION.

Call to order.

Address of Welcome.—Wells Teachnor, President of the Academy of Medicine, Columbus.

Address of the President.—Charles L. Bonifield, Cincinnati.

MEETING OF THE HOUSE OF DELEGATES.

Call to order, 10 a. m.

Miscellaneous business.

Nomination and election of nominating committee.

Reports of Officers:

Secretary,

Treasurer.

Reports of Committees:

1. Public Policy and Legislation, J. W. Clemmer, Chairman.

2. Publication, J. H. J. Upham, Chairman.

3. National Legislative, B. R. McClellan, Chairman.

SECTION MEETINGS.

MEDICAL SECTION—10 A. M.

"A Plea for Higher Ethical Standards," A. S. Barnes, M. D., Columbus.

"The Danger of Infection in Tuberculosis from Bovine Sources, with Especial Reference to Ohio's Condition," A. B. Smith, Wellington.

"Some Factors in the Management of Peritonitis," Charles Graefe, Sandusky.

"The Diagnosis of Acute Lesions of the Brain," Louis Miller, Toledo.

WEDNESDAY, 10 A. M.

SURGICAL SECTION.

"Seminal Vesiculitis Versus Appendicitis," Thomas Grant Youmans, Columbus.

Synopsis:

General Resemblance of Chronic Seminal Vesiculitis to a Certain Form of Chronic Appendicitis. Nervous Connections Through which Pain is Transmitted from Vesicles to Appendix. Case Reports. Conclusions.

Discussion opened by F. F. Lawrence, Columbus, Ohio.

"The Surgical Treatment of Varicose Veins

Based on the Results in Twenty-Five Personal Cases," Robert Carothers, Cincinnati.

"Unavoidable Post Operative Complications," F. D. Barker, Dayton.

Synopsis:

A Discussion of Unavoidable or Usually Unavoided Conditions Following Operations that Seriously Interfere with Full Restoration and Comfort, the Object of Every Operator.

Discussion opened by C. M. Galloway, Xenia, Ohio.

"Popliteal Aneurism. Its Treatment. Report of a Case Cured by Matas Operation," C. F. Hegner, Cincinnati.

Synopsis:

Definition.

Etiology—frequency.

Pathology of

(a) Formation.

(b) Cure.

Treatment.

Medicinal.

Methods Not Strictly Surgical.

Surgical.

Discussion opened by L. G. Bowers, Dayton, Ohio.

"Factors of Shock and Sepsis in Technique," F. F. Lawrence, Columbus.

Discussion opened by F. E. Bunts, Cleveland.

WEDNESDAY, 10 A. M.

SECTION ON OBSTETRICS AND PEDIATRICS.

"Broncho Pneumonia"—Geo. Murray Waters, Columbus.

"Some Etiological Factors Worthy of Consideration in Diseases of the Abdominal and Pelvic Viscera"—H. B. Gibbon, Tiffin.

"Treatment of Tubercular Disease of Bones and Joints in Children"—Walter C. Stern, Cleveland.

"Surgical Principles in Obstetric Practice"—Geo. C. Schaeffer, Columbus.

"The Physician and Child of the Future"—Erminie Smallwood, Chillicothe.

"The Education of Defective Children"—Prof. H. R. McVey, Sidney.

SECTION ON EYE, EAR, NOSE AND THROAT.

WEDNESDAY, 10 A. M.

NOSE, THROAT AND EAR.

(I) *Symposium on Headache.*

.. (a). "Headache of Nasal Origin"—Wm. W. Pennell, Mt. Vernon.

Little has been added to our knowledge of headaches for years; small causes excite headache in some persons; since it constitutes most of human misery, its causes should be found in every case, if possible; citation of seven cases of nasal headache with remarks. Case seven was remarkable for the persistence patient displayed to rid himself of his distress.

Discussion opened by H. B. Harris, Dayton.

(b) "Headache of Ocular Origin"—Robert Sattler, Cincinnati.

The following summary bears upon the special points to be referred to of a brief analysis of:

(1) Headache of ocular origin, the ocular origin the sole cause of headache.

(2) The ocular origin as an associate but latent cause.

(3) The ocular origin as an associate but manifest or dominant cause.

(4) The erroneous assumption of assigning the largest share of head pains in general and in particular to ocular origin and the vain and unscientific attempts to overcome them with lenses.

(5) The eye and adjacent regions as the nerve storm centers or dominant pain declarations of neurasthenic and psychasthenic states.

(6) The ocular manifestations, minor and major stigmata of hysteria and hypochondria.

Discussion opened by Wm. E. Shackelton, Cleveland.

(c) "Headache from the Standpoint of a General Practitioner," C. F. Hoover, Cleveland; discussion opened by E. W. Mitchell, Cincinnati.

(d) "Headache from a Neurological Standpoint," Herman H. Hoppe, Cincinnati; discussion opened by Brooks F. Beebe, Cincinnati.

(2) Hay Fever, Pathology and different methods of treatment, J. P. DeWitt, Canton; discussion opened by C. L. Minor, Springfield.

(3) Observations on diseases of the Ethmoid and frontal sinusitis, W. R. Dabney, Marietta; discussion opened by J. M. Ingersoll, Cleveland.

(4) The diagnosis of frontal sinus diseases by the Roentgen Ray, Chas. F. Bowen, Columbus; discussion opened by J. E. Brown, Columbus.

(5) Chr. Fol. Tonsilitis, H. D. Rinehart, Dayton; discussion opened by Royce D. Fry, Cleveland.

(6) The advisability of operative interference in malignant conditions of the Larynx, Samuel Allen, Cincinnati; discussion opened by A. B. Thrasher, Cincinnati.

(7) Otitis Med. Purulenta Syphilitica, H. A. Hart, Wooster; discussion opened by T. V. Fitzpatrick, Cincinnati.

(8) Sinus thrombosis, diagnosis and technique of operation, J. N. Lenker, Cleveland; discussion opened by A. H. Marvin, Cleveland.

(9) "Recent Advancements in Eye, Ear, Nose and Throat Work Through Bacterio Therapy," Oscar Berghausen, Cincinnati.

Good results in localized tuberculous lesions, such as tuberculous iritis, keratitis, and ulcerative processes can be secured through the use of small repeated doses of Koch's new tuberculin. Also the favorable results which are to be obtained in other suppurative conditions, as mastoid fistulae, chronic otitis media purulenta, persistent sinus suppuration, etc., through the use of proper autogenous vaccine in properly spaced injections. Although the use of bone necrosis cannot be removed, an associated suppurative condition can vastly be improved. Such measures do not threaten to become a substitute for surgical intervention, but act as a help to clear up extensive suppurative lesions before operations, to stimulate the patient's mechanism of immunity against the particular organism before operation and to avoid the repair of chronic sinuses, etc., which may follow the operation.

10) Expert testimony and medical jurisprudence as relating to the Eye, Ear, Nose and Throat, Spencer M. Jones, B. A., LL. B., Cincinnati.

WEDNESDAY, 10 A. M.

SECTION ON DERMATOLOGY AND GENITO-URINARY DISEASES.

Address of Chairman—E. O. Smith, Cincinnati.
"Psoriasis"—V. P. Boreing, Lima.

"Some Thoughts on Dermatology"—David Mooney, Bellefontaine.

"Two Case Reports"—S. J. Goodman, Columbus.

"Hematuria-Diagnosis and Treatment"—C. D. Kurtz, New Philadelphia.

"Carbon Dioxide Snow—Its Application in the Treatment of Skin Diseases"—Lantern Slides—M. L. Heidingsfeld, Cincinnati.

"Surgical Treatment of Ulcerative and Purulent Cystitis"—C. M. Harpster, Toledo.

"Traumatic Hematoma of the Scrotum"—A. B. Walker, Canton.

"Posterior Urethritis"—E. B. Tauber, Cincinnati.

"Oidio Mycosis, with Reference to Dermatitis Coccidioides"—A. Ravogli, Cincinnati.

WEDNESDAY, 1.30 P. M.

GENERAL MEETING.

"The Diagnosis of Tumors of the Spinal Cord"—W. B. Laffer, Cleveland.

"The Relative Indications for Cesarean Section, Based Upon an Experience of Fourteen Cases"—C. N. Smith, Cleveland.

"Sciatic Pain as an Orthopedic Symptom"—Albert H. Frieberg, Cincinnati.

"The Economic Importance of the Spread of Trachoma in Ohio"—W. H. Snyder, Toledo.

"Surgical Treatment of Graves' Disease with Special Reference to the Psychic Factor"—Geo. W. Crile, Cleveland.

"Exophthalmic Goitre—the Present Status of the Medical and Surgical Treatment"—Frank Warner, Columbus.

"Inflammation"—S. P. Kramer, Cincinnati.

"Treatment of Defective School Children"—Chas. A. Hough, Lebanon.

WEDNESDAY EVENING.

MEETING OF THE HOUSE OF DELEGATES.

Call to order, 7 p. m.

Reports of councilors.

Amendments to constitution.

Miscellaneous business.

WEDNESDAY, 8.00 P. M.

ADDRESS IN MEDICINE.

"Some Remarks on Prognosis"—F. Forchheimer, Cincinnati.

ADDRESS BEFORE EYE, EAR, NOSE AND THROAT SECTION.

"The Present Status of the Radical Mastoid Operation, as a Cure for Chronic Purulent Otitis Media"—Wendell C. Phillips, New York.

Smoker for Eye, Ear, Nose and Throat Section after Dr. Phillips' address.

THURSDAY, MAY 7TH.

SPECIAL MEETINGS.

MEDICAL SECTION, 9.30 A. M.

"Achyilia Gastrica and Mechanical Methods of Treatment"—James M. Rector, Columbus.

"The Value of Gastric Lavage"—Joseph Eichberg, Cincinnati.

"Treatment of Mucous Colitis"—Wells Teachnor, Columbus.

"Etiology and Pathology of Chronic Interstitial Nephritis, Including Urinary Findings"—L. A. Levison, Toledo.

"Arterial Changes in Chronic Interstitial Nephritis"—C. F. Hoover, Cleveland.

"Diagnosis and Treatment of Chronic Interstitial Nephritis"—John H. Lowman, Cleveland.

"Procreation in Its Relation to Insanity, Crime and Degeneracy, with Suggestions of Remedy"—E. E. Gaver, Columbus.

"Relation of Increased Blood Pressure to Cerebral Hemorrhage"—C. W. Sawyer, Marion.

THURSDAY, 9.30 A. M.

SURGICAL SECTION.

Symposium on Surgery of the Digestive Tract.

"Surgical Treatment of Infantile Hypertrophic Pyloric Stenosis"—Frank E. Bunts, Cleveland, Ohio; discussion to be opened by John P. Sawyer, Cleveland, Ohio.

"Cystic Tumors of the Pancreas"—J. F. Baldwin, Columbus, Ohio.

"A Report of Cases in Biliary Surgery"—W. D. Hamilton, Columbus, Ohio.

Synopsis:

1. Cholecystitis.

Symptoms.

Cholecystotomy and Cholecystectomy in Their

Relation to Its Surgical Treatment.

2. Cholangitis and Common Bile Duct Obstructions.

Symptoms.

A Reference to Pancreatitis.

Results of Surgical Procedures as Covering Some of the Lines of Thought which my Paper on Biliary Surgery will Contain.

Discussion opened by C. A. L. Reed, Cincinnati, Ohio.

"Ptosis of the Gall Bladder with Report of Cases"—Edwin Ricketts, Cincinnati, Ohio; discussion opened by W. F. Gillette, Toledo, Ohio.

"Enterostomy as an Element in the Treatment of Intestinal Obstruction"—Horace J. Whitacre, Cincinnati, Ohio.

"Rupture of the Sigmoid Flexure from the In-

roduction of Compressed Air"—Fred Fletcher, Columbus, Ohio.

Synopsis:

Brief review of the literature on intestinal lacerations. History of the accident; symptomatology, the indication for, and a short description of the following operations:
Laparotomy for the closure of the torn bowel; colostomy for the relief of the intestinal obstruction; the resection of a part of two ribs for the cure of an empyema; laparotomy for the repair of a ventral hernia and exploration of the pelvis; laparotomy as a means of obliterating the artificial anus—it being necessary to resect three inches of the descending colon and the greater part of the sigmoid. The anastomosis was made with a one and one-half-inch Murphy button. Recovery.

Discussion opened by J. F. Baldwin, Columbus, Ohio.

THURSDAY, 9.30 A. M.

SECTION ON OBSTETRICS AND PEDIATRICS.

"Uterine Action in Dry Labor"—A. J. Skeel, Cleveland.

"Tenoplastics and Dermoplastics"—S. L. McCurdy, Pittsburg, Pa.

"The Hygiene of Menstruation"—S. J. Goodman, Columbus.

"Certified Milk"—J. J. Thomas, Cleveland.

"Acute Rheumatoid Infections in Children; Report of Cases"—F. P. Anzinger, Springfield.

"The Management of the Third Stage Labor"—E. W. Doherty, Toledo.

"Simple, Acute and Lepto Meningitis: Its Early Recognition and Treatment"—J. Park West, Bellaire.

"The Relation of Obstetrics and Pediatrics"—Magnus A. Tate, Cincinnati.

"Pediatrics and Obstetrics: Their Growing Relation"—Park L. Myers, Toledo.

"Report of Three Nervous Cases"—Helen Hempstead, Cleveland.

THURSDAY, 9.30 A. M.

EYE.

(1) Bacteriology of the Conjunctiva—E. M. Weaver, Akron.

Established facts concerning the bacteria found on normal conjunctiva. Individual susceptibility to infection. Discussion of methods of contagion. Brief consideration of bacteriologic methods. Special organisms.

Discussion opened by A. L. Steinfeld, Toledo

(2) Trachoma in a Sociological Aspect—C. C. Stuart, Cleveland.

The article will not treat of the diagnosis or treatment. The history of trachoma from its earliest beginnings to the time of the Napoleonic invasion of Egypt in a distinct period: Trachoma was fairly well recognized by this time. The return of the French and especially of the English soldiers was the signal for a fresh outbreak of the disease, and the great spread of the malady and its worst sequelae were seen then. Since then trachoma has been endemic and pandemic in the old world.

It has been in the orient from time immemorial, and is kept up by the ignorance of the people and their religious customs.

It is not now on the increase; probably it is stationary or may be retrograding. Some of its sequelae are to be noted and what they contribute to the loss in earning capacity of the individual.

Discussion opened by W. H. Snyder, Toledo.

(3) Extirpation of Lachrymal Sac. Indications for and technique of operation—C. S. Means, Columbus; discussion opened by T. F. Bliss, Springfield.

(4) The relation of diseases of the accessory sinuses to the Eye—John W. Murphy, Cincinnati.

The anatomy of the accessory cavities demonstrates how easily the disease may extend by continuity, from the diseased accessory cavity, to the structures of the orbit. If the subjective symptoms indicate an inflammation and the ophthalmoscope reveals an internal neuritis, with a corresponding unilateral sinus disease, the inference must be there is a casual connection between the two. This connection is apt to be overlooked if the oculist does not happen to include the nasal cavity in his specialty. When a one-sided optic neuritis clears up, following the drainage of a diseased accessory sinus on the corresponding side, it is the strongest possible proof of a connection between the two.

Treatment of such cases: Report of cases:

Discussion opened by John A. Thompson, Cincinnati.

(5) The non-operative treatment of squint—Chas. Lukens, Toledo; discussion opened by Louis Stricker, Cincinnati.

(6) The operative treatment of squint—C. F. Clark, Columbus; discussion opened by George W. Marshall, Portsmouth.

(7) The electromagnet in removal of iron and steel particles from the Eye—Victor Ray, Cincinnati.

Frequency of magnetically attracted foreign bodies cutting the eye. Comparative value of scleral incision with small magnet, and the extraction through anterior part of globe with large magnet.

Discussion opened by Horace Bonner, Dayton.

(8) Cycloplegia—Arthur J. Hill, Canton; discussion opened by Horace Bonner, Dayton.

(9) "The Practical Value of Indoor and Outdoor Eye Tests" in "Railway and Marine Employees"—C. W. Tangeman, Cincinnati.

The necessity of repeated examination of the eyes of employees.

The value of the indoor test as a method of determining the acuteness of vision of an applicant for position.

The outdoor or practical test, as a means to determine whether old employees with failing vision can be retained.

Should glasses be worn, and what is their value.

By whom and how these tests are to be made.

Discussion opened by C. F. Clark, Columbus.

"Instrument Demonstrations: The Removal of Foreign Bodies from Trachea and Esophagus with Jackson's Tubes; Demonstration on Cadaver"—J. W. Murphy, Cincinnati.

The above program for the Eye, Ear, Nose and Throat section of the Ohio State meeting will prove interesting to all who attend the Columbus meeting. The titles cover a wide range of subjects and include some of the most interesting

points in this branch of work, and the professional standing of the essayists and discussants, insure a program of high character.

We have tried to arrange a program that would appeal to and be of value to the general practitioner as well as the specialist, and most cordially invite general practitioners to attend this section and participate in the discussions. The papers are limited to fifteen minutes and the leading discussants are limited to five minutes.

Those attending are requested to register with complete name and address and whether practice is limited to Nose, Throat and Ear or Eye, Ear, Nose and Throat. A fee of one dollar is charged to help defray the section expense and should be paid when you register.

THURSDAY, 9.30 A. M.

SECTION ON DERMATOLOGY AND GENITO-URINARY DISEASES.

"Relation of Diseases of Prostate to Diseases of Rectum"—E. B. Tobias, Bowling Green.

"Some Essentials in the Treatment of Diseases of the Skin, with Special Reference to the Teachings of Lassar"—Leo Reich, Cleveland.

"Tuberculosis of the Testicle"—H. E. Shilling, Troy.

"————"—A. J. Markely, Cincinnati.

"Adherent Prepuce-Its Sequelæ"—J. C. Larkin, Hillsboro.

"————"—Joseph Ricker, Cincinnati.

"————"—Edwin Tucker, Toledo.

Hugh H. Young of Baltimore, Md., will give the special address before this section.

THURSDAY AFTERNOON, MAY 7, 1908.

MEETING OF THE HOUSE OF DELEGATES.

Call to order at 1 p. m.

Report of nominating committee and election of officers and committees.

Selection of date and place of meeting.

Miscellaneous business.

THURSDAY AFTERNOON, MAY 7, 1908.

2:30 P. M.

GENERAL MEETING.

"A Year's Experience with Lumbar Puncture"—C. W. Stone, Cleveland.

"Address in Surgery, Fibroid Degeneration of the Appendix Vermiformis"—Robert T. Morris, New York City.

"The Roentgen Examination of the Oesophagus"—Sidney Lange, Cincinnati.

"Address in Genito Urinary Surgery"—Hugh H. Young, Baltimore, Md.

THURSDAY EVENING, 8 P. M.

ANNUAL DINNER—LIEDERKRANTZ HALL, 335 SOUTH HIGH ST.

FRIDAY, 9.30 A. M.

MEDICAL SECTION.

"The Present Status of Roentgen Diagnosis"—Chas. F. Bowen, Columbus.

"A Case of Ulcer of the Stomach in Six Months Infant, Probably Syphilitic"—Robert M. Shannon, Piqua.

"The Potentiality of Habit"—C. D. Mills, Marysville.

"Cystitis from a Medical Standpoint"—A. J. McCracken, Bellefontaine.

"Report of a Case of Rabies"—G. W. Rogers, Columbus.

"The Yellow Peril"—C. P. King, Newark.

FRIDAY, 9.30 A. M.

SURGICAL SECTION.

"More About Cancer of the Rectum"—George B. Evans, Dayton, Ohio; discussion opened by S. B. Taylor, Columbus, Ohio.

"Anesthesia"—Myron Metzenbaum, Cleveland, Ohio.

"Some Anesthetic Drugs, Their History and Methods of Administration"—R. A. Rice, Columbus, Ohio.

"Dislocation of Astragalus, with Report of Case"—H. H. Heath.

"Operative versus Non-Operative Treatment of Fractures"—Clarence D. Selby, Toledo; F. E. Bunts, opening discussion.

"Diagnosis and Surgical Treatment of Tuberculosis of Bones and Joints"—Chas. W. Moots, Toledo.

"When to Operate for Appendicitis"—E. C. Brush, Zanesville.

FRIDAY, 9.30 A. M.

SECTION ON OBSTETRICS AND PEDIATRICS.

"Practical Points on the Prevention, and the Treatment of Puerperal Infection"—W. D. Porter, Cincinnati.

"Two Cases of Nasal Frontal Meningocele, with a Review of the Literature of this Condition"—John Phillips, Cleveland.

"Treatment of Placenta Praevia"—A. H. Hill, Cleveland.

"Pediatrics, Why a Specialty"—D. S. Hanson, Cleveland.

"The Role Played by Exhaustion in the Production of Puerperal Sepsis"—Wm. Gillespie Cincinnati.

"Psycho Therapeutics"—D. J. Snyder, Columbus.

"Vaginal Caesarian Section"—F. S. Clark, Cleveland.

"The Surgical Aspect of Tubercular Cervical Lymph Nodes in Children"—A. F. House, Cleveland.

"Infant Feeding"—Albert J. Bell, Cincinnati.

Title unannounced—H. J. Gerstenberger.

SPECIAL MEETINGS.

The State and Auxiliary Committees on Public Policy and Legislation will hold a joint meeting Wednesday afternoon at 4:30.

A meeting of the county secretaries will be held Wednesday afternoon at 4.30.

OFFICERS.

President—C. L. Bonifield, Cincinnati.

Vice-Presidents—D. W. Steiner, Lima.

J. S. McClellan, Bellaire.

D. S. Bowman, Akron.

H. T. Sutton, Zanesville.

Secretary—J. H. J. Upham, Columbus.

Treasurer—James A. Duncan, Toledo.

SECTION ON MEDICINE.

Chairman—Geo. Fackler, Cincinnati.

Secretary—John D. Dunham, Columbus.

SECTION ON SURGERY.

Chairman—George Goodhue, Dayton.

Secretary—M. A. Ewing, Dayton.

SECTION ON DERMATOLOGY AND G. U.

Chairman—E. O. Smith, Cincinnati.

Secretary—W. I. LeFevre, Cleveland.

SECTION EYE, EAR, NOSE AND THROAT.

Chairman—W. E. Bruner, Cleveland.

Secretary—Wade Thrasher, Cincinnati.

SECTION ON OBSTETRICS AND PEDIATRICS.

Chairman—J. J. Thomas, Cleveland.

Secretary—J. M. Moore, Cleveland.

THE COUNCIL.

1st District—Brooks F. Beebe, Cincinnati.

2d District—Horace Bonner, Dayton.

3d District—Frank D. Bain, Kenton.

4th District—Julius H. Jacobson, Toledo.

5th District—W. F. Lower, Cleveland.

5th District—W. E. Lower, Cleveland.

7th District—J. C. M. Floyd, Steubenville.

8th District—Chas. S. McDougall, Athens.

9th District—John E. Sylvester, Wellston.

10th District—T. W. Rankin, Columbus.

COMMITTEES.

PUBLICATION.

C. F. Clark, C. S. Hamilton, The Secretary.

PUBLIC POLICY AND LEGISLATION.

J. W. Clemmer, Geo. H. Matson, W. H. Snyder, The President and Secretary.

CORRESPONDENCE

2431 Dearborn St., Chicago, April 17, 1908.

Editor Ohio State Medical Journal, Columbus, Ohio:

Dear Doctor: In connection with the approaching session of the American Medical Association, special college reunions are to be held on the evening of June 2. It has been decided to combine the annual commencement dinner tendered to the graduating class and the alumni, by the faculty of Northwestern University Medical School, with the alumni banquet to be held during the meeting of the American Medical Association. This dinner will be held at the Illinois Athletic Club on Michigan avenue on the evening of June 2. It is hoped that all graduates of the Northwestern University Medical School will be present at the meeting of the Association, and will attend this dinner. In order that this notice may reach all of our alumni we shall greatly appreciate it if you will announce this dinner through the news columns of your journal.

Thanking you for any courtesies in this direction, we remain, Very truly yours,

GEORGE W. WEBSTER,

S. C. PLUMMER,

F. R. GREEN,

Committee.

Elyria, O., April 19, 1908.

The Editor Ohio State Medical Journal:

Dear Sir: A mistake was made in the reporting of Dr. William Storey's paper, read before the Lorain County Medical Society, and appearing on page 251 of the JOURNAL. It should be corrected to read, "Fifteen cases were treated without the use of the Flexner serum; of these, twelve died and three recovered. Three cases were treated with the serum, and they all recovered."

Heberden's nodes of arthritis deformans bear no relation to gout. Urate of soda is never deposited. Exostoses at the joints are known as Haygrath's nodosities.

Florence Nighthale is now in her eighty-eighth year. The King has recently decorated her with the Order of Merit, which was thus bestowed for the first time upon a woman. This order was established in 1902 for the recognition of especially distinguished services in all walks of life. The English people regard it as one of the highest possible honors within their sovereign's gift.—Medical Times.

MEDICAL ECONOMICS

License of the state to practice medicine is based upon (1) the protection of the public health (2) and the qualification of physicians for service in courts, public office, public institutions, military service, etc.

There are two general principles to govern medical practice legislation, one is the *Restrictive Principle* now in force in this and many other states. By means of a State Medical Board, men are qualified and licensed to practice. Any one in practice without such qualifications and license is an illegal practitioner. The practice of medicine is restricted to licensed physicians. The individual is not privileged to employ a practitioner not properly qualified and licensed by the state. The other is the *Definitive Principle* now in operation in Great Britain and other countries. The state qualifies and licenses physicians as under the restrictive principles, but does not prevent the practice of men not qualified and licensed by a State Board. The state simply defines who are qualified and allows the citizen to employ a licensed physician or a non-licensed practitioner as he chooses. The state establishes medical standards as a guide to licensure of medical men in order to secure competent service in public office, public institutions and courts of justice, but allows the citizen to employ whom he pleases. The state says to the individual, select a non-qualified practitioner or a physician qualified by the State Board as you like.

There is a bill now pending in the legislative body of Germany, as outlined in another paragraph, which offers a modification of the *Definitive Principle*, and has to do with protecting the public against medical practice frauds.

The unlicensed doctors are made to register and are placed under police regulation by civic authority. The modified *definitive principle* should be considered. It seems to fit the Ohio situation.

Page 1213, A. M. A. Journal, April 11, 1908, gives proposed law for Germany to regulate practice. Read it. State standards are maintained. The dignity and work of licensure, based upon qualifications are preserved. There is no limited license for half baked practitioners. They are registered and placed under police surveillance. They are not allowed to treat venereal diseases or advertise aborti-facients or means of prevention. Secret methods and remedies not permitted, under regulation of a commission ap-

pointed by municipal authority. Hypnosis and absent treatment are proscribed, and the use of narcotics, except local anesthetics is prohibited. All remedies are passed on by the commission.

It would be humiliating to be compelled to state in court that you are not a member of your state and county medical associations. There is a reason; your diploma and license are kept in force by virtue of the organization work of these societies. Your standing in the community as a physician owes a tribute to the organized profession, and your standing in the profession contributes to your usefulness as a physician.

The medical profession the country over has little influence in legislative walls. The reason is evident. Medical men and medical societies confine their work almost exclusively to scientific matters. To secure professional and public health legislation an organized effort by component societies must be made in the practical affairs of the public health defense. The medical and sanitary interests of the public are identical with the principles of medical organization. When this work is taught and demonstrated in every community by the sanitary uplift of the people by securing improved conditions of the public school, water, food and dairy supplies and the like, the public will appreciate the fact that the medical profession is organized primarily for the interests of the people.

When popular sentiment is educated in this manner, the profession will come in to right relations with the people. With confidence established upon mutual interests of the profession and the public, medical legislation would proceed along normal lines. As it is, when representatives of the profession meet representatives of the people in legislative halls, the aspersion is cast upon medical men of attempts to build up a trust. From another viewpoint the same stumbling blocks are seen in the way of organization work. Men well up in scientific medicine and modern surgery are well down on the other side of the question of organization. An illustration of the fact comes from one, upon being solicited for funds with which to prosecute the work of medical legislation, said, "Let those pay who are benefited."

Observation and experience teach that both the medical and general public are not sufficiently educated or interested in matters of public

hygiene to secure the enactment and enforcement of public health laws.

These are unpleasant but stubborn facts in the way of medical legislation. The remedy is well known but little used. It is the work of organization in county and district societies. More attention to the education of students in medical economics, medical standards, public health defense, medical practice laws and kindred subjects is necessary.

The relation of the profession to the public is based upon the interests of the patient as being of primary and supreme importance and upon a fair and honest statement of medical facts. In other words, the medical interests of the laity are identical with the cardinal principles of medical organization. Medical ethics and standards are in the interest of the public. Any one violating these standards by making false statements, practicing secret methods or ignoring the interests of the patient in order to promote his own, is an enemy to medical organization. Hence there is an eternal warfare between charlatans and the medical profession. Hence it is that any trade interest, manufacturer or publisher who substitutes selfish interests for those of the public, or misrepresents medical facts opposes the fundamental principles of medical organization.

Taft, in his splendid address before the Columbus Board of Trade, said: "We have no right as a nation to ask our citizens to expose themselves as enlisted men in battle without reducing the chances of disaster and death by proper military education of the officers and proper military training of the men."

When it is well known that a multiple of men die in army service from preventable disease as compared with casualties of battle, fourteen to one in the Spanish-American war, the whole truth should be told that it is criminal negligence on the part of the nation to follow such a policy of death to many men from avoidable disease.

The greatest crime against the army is committed by congressmen who oppose the passage of the bill to improve the medical department of the army.

Military schools teach men how to shoot, but military tactics do not teach soldiers to prevent their own destruction from typhoid fever.

Speaker Cannon should learn a lesson from the Japanese.

A medical journal for the home in the hands of a man opposed to medical science is an instrument of evil. It is a misnomer. It is not

medical. Such a publication and such an editor do not stand for medical progress and the medical profession. To teach nihilism in public sanitation, pronouncing an epidemic of typhoid fever, catarrhal fever, denouncing vaccination, bacteriology, medication and surgery, endorsing drugless cults and faith cures, is the work of a maniacal anarchist. The falsification of sanitary science and therapeutics, and the misrepresentation of medical tactics by one assuming the virtues of a teacher, though masquerading in the livery of a maligner, are the expressions of criminal propensities inflicted upon an innocent public through motives born of failure and disappointment. A mad man in the street, unguarded weapon in hand, destroying imaginary enemies typifies the assault upon the medical profession by the editor of a medical journal for the home whose vaporings and billingsgate display a criminal capacity for destroying the sanitary and medical interests of the public.

This class of unlicensed and unqualified practitioners should not be permitted to use the title of doctor or its equivalent, or to sign death certificates, or perform other legal duty.

Huxley said: The man of science has learned to believe in justification, not by faith, but by verification.

Mr. Chaney of Hall's Catarrh Cure and president of Proprietary Medicine Manufacturers of America, has a record in medical legislation. He has made an efficient officer for the proprietary interests, and achieved notoriety as the author of the "red clause contract" with newspaper publishers, which annuls contracts in case of adverse legislation or comments. He is a chronic lobbyist for proprietary interests, attending sessions of Legislatures the country over. He has a long record in addressing newspaper associations, and he and his confreres have fought pure food and drug legislation for many years. The Chaney-Foraker type of opposition has long delayed the rights and benefits of the people. These united forces fought to the last ditch. To atone for the insult and injury offered the public, in the presence of their pending defeat, in the overwhelming popularity of the National Pure Food and Drug Bill, the Senator voted for it, and Mr. Chaney came before the Senate Committee of the Ohio Legislature, Feb. 25th, 1908, and endorsed the Crist Bill! The "Colonel" appeared before this committee with the suavity of an old champion of the public health defense. Such duplicity in the livery of diplomacy is worthy of the lost cause.

CURRENT MEDICAL LITERATURE

DIFFUSE PROGRESSIVE PERITONITIS
TREATED WITH CONTINUOUS RECTAL
SALINE INFUSIONS.

Continuous rectal enemata are not new to American physicians. The method has been extensively used and advocated by Murphy, of Chicago, and has further been proven of great value in the post-operative treatment of patients by the Mayos, of Rochester, Minn., and undoubtedly is now being used by many others. However, it is well to be reminded occasionally of these methods. Grothan (*Western Medical Review*) pertinently comments on an abstract of cases reported by Kothe, as follows:

"The enormous advantage of the saline solution treatment in peritonitis is so apparent that to one who has had the opportunity to observe its efficacy it seems strange that it has not come into universal use, almost to the exclusion of all other treatments. Kothe's method, though a little more troublesome than the use of a few ounces as an enema very slowly injected every one, two or three hours, has, perhaps, but slight advantage over the latter. In hypersensitive patients, where enemas are retained with great difficulty, this means may be preferable.

"The reviewer of Kothe's article fails to state that the patient should be allowed absolutely nothing by the stomach, and that pleasant, slightly antiseptic mouth washes ought to be used frequently, both as a comfort to the patient and to prevent parotitis."

The abstract is as follows, and, together with the comments preceding, give a clear idea of the method as it should be used:

"Quoting from *Therapie der Gegenwart*, Berlin, the *Journal of the American Medical Association*, Vol. XLIX, No. 21, cites twelve cases reported by Kothe of extremely severe progressive peritonitis from gangrenous appendicitis, in which he was able to save most of the patients by rectal infusion of saline solution. The fluid is placed in an enema bucket, raised a foot and a half above the bed. The outlet is closed to allow only one or two drops a second to escape. From two to three hours are required for the passage of a pint, and by repeating this procedure every twelve hours from four to six quarts can thus be introduced into the rectum and retained. This relieves the tormenting thirst, raises the blood pressure, influences the heart action favorably, starts abundant diuresis and intestinal peristalsis, and allows nourishment to be given in the infusion,

without disturbing the patient or even interfering with his sleep. He sometimes adds 150 gm. of grape sugar, equal to 615 calories, to three liters of the solution. To keep the solution warm, he stands the enema bucket in a wooden box lined with flannel, with an inner layer of ground cork or sawdust."

INGUINAL HERNIA: RESULTS AND
TECHNIC.

Judd (Minn. State Med. Association, Feb. 15, 1908, p. 66) reports an interesting series of operations for inguinal hernia.

The simple anatomic operation without cord transplantation was done 1241 times. Recurrences were traced twenty-one times and always occurred along the cord, showing just above the pubic bone. "The greater number of recurrences came from trying to make the simple operation do for all classes of cases."

In 411 operations, with cord transplantation, there were four recurrences. This does not argue that the cord should always be transplanted, for the simple operation is the operation of choice. Since the strength of the closure "depends almost entirely on the internal oblique muscle, it being the only structure in this region with abundant blood and nerve supply," transplantation of the cord is only necessary when the internal oblique muscle is thinned out at its origin from Poupart's ligament, as occurs in very fleshy individuals with pendulant abdomens, or where there has been atrophy from the constant pressure of a truss. "In the ordinary oblique hernia good muscle extends the entire distance to the conjoined tendon," and transplantation of the cord is unnecessary.

The technic of operation varies but little from the usual technics except in the incision of the external oblique fascia. "The aponeurosis of the external oblique is incised parallel to the line of its fibers at a point just internal to the internal pillar of the external ring, and the incision is continued well up over the internal ring. The external ring is left intact except in the large irreducible hernias. Poupart's ligament is cleared well down with a piece of gauze or blunt dissector so that the lowest part of the shelving edge is exposed. The weak point is readily located with the finger near the internal ring, the cremaster and transversalis fibers separated with a pair of blunt forceps and the neck of the sac grasped."

After the sac is freed, its contents reduced, the neck of the sac ligated and the sac removed, an examination of the internal oblique muscle decides whether or not to transplant the cord.

In the simple operation the "deep sutures of plain heavy catgut are started at a point just above the internal ring, and pass through the internal flap of the aponeurosis of the external oblique, taking a good bite into the internal oblique and transversalis, and then pass across to a low point on the shelving edge of Poupart's ligament. * * * The lowest stitch is under the external ring and allows just room enough for the cord to pass without constriction. The stitches should avoid the ilio inguinal nerve and be tied only tight enough to approximate the muscle and ligament."

The remaining flap of external oblique fascia is now lapped upward over its fellow and sutured by a stitch (a continuous mattress suture), which holds it flat to the upper surface of the upper flap, whose edge has already been included in the deep sutures and drawn down to Poupart's ligament.

Where it is decided to transplant the cord, "the cord is separated freely from the surrounding structures and held aside with a piece of tape, and exactly the same structures approximated with the deep sutures as in the simple type, except in this case the suturing is done posterior to the cord, and in addition one stitch is put above the cord to fold the muscle on to Poupart's at this point. In many operations of this type it will be necessary to open the sheath of the rectus and catch this muscle in the lowest stitches, in order to close well the lower angle. It is very essential that the deep stitching continue to the pubic bone." The remaining flap of the external oblique is now brought up over the cord and sutured to the surface of its fellow, as before. This leaves the transplanted cord between the imbricated layers of the external oblique fascia. (Occasionally it will be impossible to draw the lower flap over the cord without too great pressure. The cord must then be allowed to rest just under the skin, and the imbrication of the fascia be done under the cord, as suggested by Andrews.—Ed.)

"In the female the round ligament is not transplanted. One deep stitch passes half through the ligament to prevent its slipping and losing its support to the uterus. Otherwise the technic is identically the same as the simple operation in the male. The wounds closed, subcuticularly, are dressed with dry sterile gauze and adhesive straps. The simple type of cases will remain in bed eight or nine days; the fleshy subjects or those with

direct hernia, ten to twelve days. Any support that makes pressure over the healed incision is dangerous, as it will tend to separate and produce atrophy of approximated tissues, and so every patient is advised against the use of a truss. The very fleshy individual with a large abdomen will feel more secure with an abdominal supporter, and this does no harm."

DEEP SEPTIC INFECTION OF THE FEMALE, DUE TO MODERN HABITS, AND MANNER OF TREATMENT OF LOCAL INFECTIONS.

Roark (Ill. Med. Jour., Feb., 1908, p. 147) states that 50 per cent. of young male adults have or have had gonorrhea; that of these 95 per cent. are in a few weeks "subjectively" cured—that is, they feel all right and believe themselves entirely well, but that many of them are apt to be foci of infection in both licit and illicit intercourse. He says:

"Given a young man of this class, we will assume he contracts matrimony with a girl who thinks she is not yet ready to assume the trials and responsibilities of maternity; the vaginal douche is used, and nothing in this world is more certain than that we will have a case of 'pus tubes.'"

It is to the constant use of vaginal douches, whether for this or other reasons, and to the attempts to cure acute vaginitis by douching with antiseptics that Roark attributes the increased number of deep infections and consequent sterility and invalidism of so many women. To no single agent can more "diseases of women" be traced than to the gonococcus.

Referring to Wright's Harvey lecture (J. A. M. A., Aug. 10, 1907), he quotes: "Significant, again, is it that treatment by antiseptics in case of bacterial invasions of mucous membranes is today more and more frequently followed up by curetting, scraping and so-called radical operations," and "that outpouring of lymph from the disinfected surfaces will not only wash away the antiseptic, but when a skin surface is in question it will convert the natural dry and horny epithelial armor into a lymph sodden envelop, which will be easily penetrable by bacteria."

Further Roark continues: "Under the head of prophylaxis I think every general practitioner should explain to every adult female in the families under his care the important function of the vaginal secretions. Explain to them that this secretion, owing to the peculiar anatomical construction of the female organs of generation, is the principal protection they have against infec-

tion of the uterus, tubes and peritoneum. Tell them plainly that to wash away this secretion even with hot water is always attended with danger. This knowledge will probably prevent attempts at self treatment, which many of these patients try by way of a douche before seeing their regular medical attendant.

"In instituting treatment of specific infection of the female I will ask you to bear in mind that, in common with other pathogenic bacteria, the gonococcus in itself is not injurious; it is the toxins generated by the gonococcus that destroy the viability of the tissues with which they come in contact. Efforts to destroy the germ itself are only properly made, as in other diseases, to prevent contagion of uninfected individuals.

"Either the urethra, vulva or cervical canal is almost always the primary seat of infection. If only the urethra and vulva are involved, any man should be able to see the danger connected with using the antiseptic vaginal douche, and if the cervical canal be involved the utter uselessness of the douche so far as effecting a cure of the symptoms. There is another reason for not using the douche besides that of carrying the infection deeper. By its use the vaginal secretion is washed away, and of this secretion Doderlein says: 'Because of the phagocytic action of the acid-forming bacillus of the vagina the gonococcus will not long survive.' It is only when the vagina becomes, from the use of antiseptic, a 'lymph sodden envelope,' to use the words of Wright,' that this function becomes suspended. The only proper treatment for this condition is rest in bed, if possible, and the local use of hot water in the form of sitz baths. This method of treatment, which is simplicity itself, has resulted in a cure for me in all the cases I have had under my care during the last six years. There is not the slightest cause for worry about the copious vaginal discharge that usually occurs during the attack. It is the physiologic attempt of the vagina to destroy the invading bacteria.

"When the patient has gained her immunity, as evidenced by a complete subsidence of all inflammatory symptoms, she is often able to infect her consort from the germs that still linger in the genital tract. The best method I have found to disinfect the parts is that used and highly recommended by Chappelle, of Paris. He uses a 'pure desiccated form of yeast known as cerevisine, which may be exhibited in the form of a pessary of cocoa butter filled with cerevisine and placed in position on going to bed, or it may be used as a paste made up with glycerite of starch. The quantity for application is not important, as it is

perfectly harmless, but from 1 to 2 teaspoonfuls can usually be introduced and retained in the vagina during the night. I have used this preparation, and I find it very effective as a disinfectant. I have found three to five treatments, made about every third night, quite sufficient to remove all germs.'"

When deep infection has taken place, the usual treatment, with absolute rest in bed, is to be employed. Certainly, whether one agrees with Roark's data or the soundness of some of his historical deductions or not, he does present a criticism of present prevailing methods of treating acute local gonorrhea in the female which is worthy of thought.

THE BANANA IN THE TREATMENT OF DIARRHEA.

(Collin, *Gaz. heb. des Sc. Med. de Bordeaux*, and L. Gayard, *Gaz. des Hopitaux*.)

"Confronted by the slow and uncertain results obtained with the usual treatment of diarrhea in general—namely, purges, followed by mucilages, opium, antiseptics and astringents, coincidentally with a milk diet—Collin, a surgeon in the French army, colonial division, tried the exclusive banana diet. Bananas are sterilized by thorough boiling and at the same time reduced to a pulpy cream or puree. This treatment was shown him by a physician from Java, who had used it with success. In the absence of fresh milk it is a good substitute in cases of diarrhea.

"The quantity of banana cream or puree ordered varies from 300 to 1000 grams a day, according to the patient's appetite, with the addition at times of a small amount of light rice water or lactic lemonade (2 per 100). In cases of simple acute diarrhea or uncomplicated chronic diarrhea, the banana cure works beautifully, but it rarely acts favorably in severe cases complicated with dysenteric symptoms. As soon as the banana cure is begun the number of stools decrease, cramps become less and then cease, and finally the general condition is bettered very rapidly.

"The properties of the banana seem due to its richness in sugar and starch."—*Via New Orleans Med. and Surg.*

COMPLICATIONS FOLLOWING LA GRIPPE.

It is well to remember that la grippe is not a disease with which to trifle. Cardiac insufficiency often follows seemingly mild attacks. Aside from this the individual is left in a state of low vitality and becomes the victim of many

(Continued on page 324.)

COUNTY SOCIETIES

FIRST DISTRICT

The subject of typhoid fever was presented to the Cincinnati Academy of Medicine, March 3, by John H. Landis. He did not lay implicit faith in the Widal test, which he said was frequently found in tuberculosis. He considered of great importance the presence of albumin in the urine, a slight pharyngitis and the presence of a dryness and yellowness of the palms of the hands. He thought alcohol contraindicated in all cases and conditions. He gave acetate of lead in 1-10 gr. doses, well diluted, every three hours. He thought, generally speaking, the less medication the better, though sometimes gave acetanilide in two-grain doses. He recommended the liquor diet, but thought that the feeding was resorted to with too great frequency. He thought the first item of importance was rest for the stomach and bowels. The doctor drew interesting experiences from his own personal experience in the disease and from his practice in St. Mary's Hospital. Interesting statistics were given of the very material decrease in the number of cases in Cincinnati since the use of the filtered water from the new water works, which commenced last November. Previous to that there were all the way from 50 to 115 cases per month reported, which is now cut down to an average of about fifteen per month. Many physicians of large practice said that they had not seen a case since the use of the new water works with its filtering plant and taking in the water higher up the river. During November, December, January and February, a year ago, there were 5639 cases of typhoid fever in Cincinnati, with sixty-six deaths. During November, December, January and February just passed there were eighty-nine cases with twenty-four deaths. Improvement due to the new water works.

The Highland County Medical Society met Wednesday, April 8, at 10:30 a. m. Program was as follows: "Reports of Clinical Cases," Glenn, Russ, Cropper and others; miscellaneous business and election of delegate to state meeting; "A Retrospect," F. M. Thomas, Hillsboro.

THIRD DISTRICT

At a meeting of the Hancock County Medical Society held April 2, J. J. Kimmell read a paper on "Alcohol." He described its source. None in grains or fruits from which obtained. Formed by changes through putrefaction or fermentation. Grain is broken up and placed in warm location

until fermentation takes place. How found in beer and wines. The process not understood, but named as we name electricity. Ancients assigned the power to the god Bacchus.

A steadily decreasing portion of humanity believe in the fallacious benefits of alcohol. Formerly thought a necessity when great feats of endurance were to be undertaken, but we are progressing into the light, science and truth, until even the defense of the liquor dealers' plea by Senator J. B. Foraker before the United States Senate, is held up to scorn and contempt.

The doctors of the world have not been followers, but leaders in the real practical reform as to the proper place that alcohol should occupy in the list of the poisonous drugs. For many years an association of temperance practitioners, organized under the leadership of the late N. S. Davis, of Chicago, father and first president of the American Medical Association, have abolished the prescribing of alcohol in their practice.

Reputable insurance companies refuse policies on the lives of not only the consumer of alcohol, but also those selling or manufacturing. Railroad companies will not hire men who drink whether on or off duty.

The coal mines have organized corps of trained men to render first help. They are instructed to not give alcohol to injured, but coffee or aromatic spirits of ammonia. Even a drink of water is considered a better bracer.

As oxygen is the most common and most largely diffused of gasses in nature, so albumen is the most generally diffused substance of the human body. As alcohol coagulates albumen what is to prevent a partial coagulation of this most important nutrient. Figure the consequence of this change of the albumen in the fluids of the body.

What about the heating qualities of alcohol? It has been used under the impression that it imparted heat to the body, but the clinical thermometer has dispelled this illusion. Note a well man's temperature, then give a gill of alcohol and in an hour you will find a lowering of one or two degrees. Applying externally in fevers reduces temperature, but so will water and it is cheaper. A man exposed to great heat perspires freely if in a state of good health and if his labor is hard his waste is great. All the organs of the body should be in good order that the system may not be encumbered with sewage.

The drinking of alcohol impedes digestion and irritates the lining of the stomach. The brain becomes partially disabled by its use; the equi-pose of system has been destroyed, resistance to disease weakened and the deluded victim stands helpless before his enemy disease. As a poison it takes its place in chemistry, physiology and hygiene. As a medicine it has a very limited use. Damages exceed its benefits. As a food, alcohol has no power whatever; it furnishes no aliment, builds no tissue, repairs no waste, does not give health and resists extremes of heat or cold.

It is supposed to be a great antiseptic and great quantities are consumed in families where one of the members is sick with typhoid fever or diphtheria. We have seen that an accumulation of waste material in the body causes fever. Then if alcohol is freely administered to a well person, you increase this waste and disturb digestion and nervous system and throw wide the door for disease to enter. The diseases induced by alcohol do not stop with the death of the transgressor, but children, if born, will inherit the evil of their progenitors. Stunted in body and mind they are liable to become inmates of our asylums for the idiot, the insane and the reformatory institutions of our country. It has been a misfortune to the human race.

The above paper brought out a lively discussion, some contending that alcohol had its uses and they would not be without it in their practice.

Communications were filed from the legislative committee for future use.

The Seneca County Medical Society held their regular monthly meeting March 19. Four new members were elected to membership. The following papers were read and discussed: "Cerebro Spinal Meningitis, with Report of Case," B. W. Mercer, Tiffin; "Puerperal Sepsis, Symptoms, Treatment and Report of Cases," H. B. Gooding, Tiffin.

Auglaize County Medical Society held a very successful meeting at Wapakoneta, March 26. The following program was presented:

Morning Session, 9:30, Court House—Rev. J. H. Guller, D. D., Invocation; G. L. Smith, Prosecuting Attorney of Auglaize County, Address of Welcome; M. J. Longworth, President Auglaize County Medical Society, Response; G. W. McGaskey, of Purdue University, "Carbo-Hydrate Metabolism and Diabetes"; F. F. Lawrence, Starling-Ohio Medical College, "Operative Technique and Post-Operative Complications."

Afternoon Session, 1:30, Court House—C. F. Hoover, of Western Reserve University, "The Pathological Physiology of Arterial Sclerosis"; C. O. Probst, Secretary State Board of Health, "Review of the Work of the State Board of Health"; G. H. Matson, Secretary State Board of Medical Registration and Examination, "Work of the State Board of Registration and Examination, and Legislative Matters Concerning the Profession."

Evening Session, 6:00, Court House—J. E. Greiwe, of Ohio Medical College, "Pernicious Anæmia"; Robert Carothers, of Ohio Medical College, "A Consideration of the Non-Tubercular Affections of the Sacro-iliac Joint."

Addresses, 8:00 p. m., Opera House—Charles A. L. Reed, Chairman of the Legislative Committee of the American Medical Association; C. L. Bonified, President of the Ohio State Medical Association.

Banquet, 9:30 p. m., Hotel Steinberg—H. S. Noble, Toastmaster; K. K. Wheelock, of Fort Wayne, Ind., "Dreams and Other Facts"; Brooks F. Beebe, of Cincinnati, "The Physician as a Factor in Civic Matters"; C. F. Gray, of Dayton, Ohio, "What is a Professional Uplift"; J. H. J. Upham, Columbus, "The State Journal."

A large attendance was present, although a severe windstorm interfered with the interurban electric service very seriously.

FOURTH DISTRICT

The Medical Section of the Academy of Medicine of Toledo and Lucas County met March 20. The general subject was "Pneumonia." L. A. Levison exhibited specimens of pneumonic lungs. John North read a paper upon the "Pathology of Lobar Pneumonia." Dr. North does not accept the common accepted view that the essential feature of pneumonia is a true inflammation of the lung. He does not believe it to be a true inflammatory condition and discussed his views upon the subject in detail.

Herbert L. Smead read a paper upon the "Diagnosis and Treatment of Lobar Pneumonia." Dr. Smead first spoke of the characteristic physical signs and symptoms of the typical case of lobar pneumonia and illustrated the usual course with the report of a case. Pleuritic exudates may simulate pneumonic consolidation. There is usually no respiratory murmur over fluid exudates. Acute tuberculous pneumonia may occasion some difficulty in differentiation. To distinguish between lobar and lobular pneumonia may not always be easy. Patches of lobular consolidation may become confluent and resemble a lobar condition. Pleurisy and pericarditis may present

points of similarity. In discussion of the treatment, Dr. Smead said he could not cure pneumonia, nor could any one else. Much can be done by an intelligent and wise treatment and the mortality can be so decreased. A weak heart can be carried over dangerous places, and many lives so saved. The crisis, however, can not be brought one hour sooner by any known method of treatment. Pain in the side is best relieved by ice bag. Blood letting may be valuable if done early in robust individuals. In children, leeches applied to the thorax may be of value in threatened weakness of the right heart. Morphine injections are justifiable in severe pain. Hypodermoclysis as an aid in the elimination of the toxins and as a general stimulant is very valuable and it is too seldom used. The cold sponge bath is the best antipyretic measure. Any tendency toward a weakening of the heart must be promptly met by the vigorous use of stimulants such as strychnine and atropine. Much is to be expected from the future therapeutics of pneumonia.

John F. Liken spoke of "Pneumonia in Children." He reviewed the subject and spoke of his own experience in pneumonia.

The discussion which followed was participated in by Drs. Dickey, Levison, Chapman, Smead, North, Liken and others.

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met March 27. The general subject of the meeting was fractures. Harry W. Dachter read a paper upon "The X-ray in Fractures." He illustrated his talk with a stereopticon demonstration of fractures. George M. Todd and James Donnelly read papers upon "The Open Method of Treating Fractures." Dr. Donnelly exhibited a patient whose femur had been treated with good recovery.

Clarence D. Selby and Samuel S. Thorn read papers upon "The Closed Method of Treating Fractures."

These papers were discussed by the members present.

The Academy of Medicine of Toledo and Lucas County met in general session April 3. The general subject was "Abortion." L. A. Brewer read a paper upon "The Etiology of Abortion and Miscarriage." In part, he said that it is estimated that there is one interrupted pregnancy in sixteen labors. The smallest percentage occur before twenty and the greatest after forty. The third month is the period of most frequent termination. The term *abortion* is usually applied to expulsion of the ovum before the end of the

fourth month; *miscarriage* to expulsion from the end of the fourth to the end of the sixth; *premature labor* from the sixth to the term of pregnancy. Women who have aborted once are more liable to a recurrence. This is due to existing causes as syphilis, uterine flexion, endometritis, etc.

Among the fetal causes of abortion, death of the foetus is one of the most common. Extravasations of blood may take place as into the decidua vera and uterine wall. Again, hemorrhage may break through the decidua reflexa and even into the cavity of the amnion. Upon the maternal side, abortion may occur in various conditions in which the nutrition of the mother is poor. Excesses, fatigue, pleasures of society, alcoholism, excessive coitus, various diseases as fevers, pneumonia, syphilis, etc. Causes acting through the nervous system are common, as fright, anxiety, shock, etc. Abortion not unfrequently occurs from the irritation of constant suckling in women who become pregnant during lactation. Toothache, albuminuria, gravel, constipation all may be causes.

Physical causes may produce abortion, as a fall, blow, accident, etc. Likewise, it may occur in morbid states of the uterus, such as fibroid tumors, peritoneal adhesions, flexions, displacements and inflammatory conditions of the cervical and uterine membrane.

Dr. W. G. Dice read a paper upon "The Diagnosis and Treatment of Threatened Abortion." He said the symptoms vary with the stage of pregnancy. In the later months they resemble full term labor, while early they resemble menstrual periods. The two cardinal symptoms are hemorrhage and pain. Any bloody discharge from the uterus during pregnancy is to be looked on with suspicion. There may be a dirty, brownish-red discharge during the entire pregnancy without significance, as in one of Dr. Dice's cases. Many patients abort during the first six weeks and do not know that they have had more than an excessive menstrual period.

The most prominent symptoms are backache, increased vaginal secretion, increased frequency of urination and feeling of fulness in the pelvis. Vaginal examination may show a uterus low in the pelvis, possibly the os somewhat softened, occasionally uterine contractions. In inevitable abortions, the pain is considerable, the os is dilated and fragments of decidua appear.

The differential diagnosis must exclude menorrhagia, metrorrhagia, dysmenorrhea and ectopic gestation.

The treatments depends on various factors.

Prophylaxis is especially important in predisposed individuals. Quiet at menstrual periods should be required, also sedatives at this time. In threatening cases the patient should be put to bed and bromides, viburnum or opium given. Care should be taken in making vaginal examinations and at times they should be refrained from.

The Pathological Section of the Academy of Medicine of Toledo and Lucas County met April 10. Louis A. Levison and Harry Dachter demonstrated a patient with chronic lymphatic leukemia treated with the X-ray. The white blood cell count in December, 1907, was 350,000 and had been reduced by the X-ray treatment to around thirty and forty thousand. The case has been complicated by a grave anemia, the red cells falling at one time to 760,000 and the hemoglobin percentage to 14.

Charles F. Tenney read a paper upon "The Physiology of the Leukocytes." Dr. Tenney first gave a histologic description of the various white blood cells and the theories as to their origin. The amoeboid quality of the leucocytes was described and the significance of this pointed out. The functions of the leucocytes are not entirely understood. (1) They protect the body from bacteria and other organisms. They do this either by direct ingestion or by the production of certain substances. (2) They participate in the process of blood coagulation. (3) They aid in the absorption of fats and peptones from the alimentary tract. (4) They help to maintain the normal composition of the blood plasma.

Dr. Tenney defined leucocytosis as an increase of the white blood cells in the peripheral circulation above the maximum, that is normal, for the individual in question, in the conditions in which he at that time finds himself.

A physiological leucocytosis may occur during digestion, pregnancy, cold baths, massage. A pathological leucocytosis occurs in inflammatory processes, in malignant tumors, after hemorrhages, after medicinal therapeutic measures, shock, etc. Dr. Tenney believes physiological leucocytosis is often considered as pathological. Digestion leucocytosis was described in detail.

James Todd Duncan read a paper upon "Chronic Lymphatic Leukemia." He said the disease was of unknown origin and was particularly marked by an increase in the number of lymphocytes and an hyperplasia of the lymphoid tissue. The disease may be either acute or chronic. Acute leukemia lasts only a short time, is associated with fever and weakness. The onset

is sudden and is followed by enlargement of lymph glands and spleen, petechial hemorrhages and the appearance of the characteristic blood findings. In the acute as well as the chronic forms, the diagnosis can only be absolutely made from the blood findings.

The chronic form begins insidiously. The glandular enlargement is particularly noticeable in the cervical region. The individual glands are usually separated from each other. The spleen is always enlarged, but never so great as in myeloid leukemia.

The blood examination shows the white count 100,000 or over and of these 90 per cent. are lymphocytes. The red cells are hemoglobin decrease in proportion to the duration of the disease. The course of the disease is usually progressive, but acute exacerbations or remissions may at any time recur.

The etiology of the disease is unknown. Various theories ascribe it to bacteria, toxins and malignancy, but these lack substantiation. Pathologically, there is enlargement of lymph glands and spleen. The lymph tissue does not differ from the normal.

In the diagnosis, myeloid leukemia is to be differentiated by the presence of myelocytes. Pseudo leukemia can be excluded by the blood examination.

Syphilitic glands are not so large, nor so generalized and react to the iodides. The treatment is arsenic and the X-ray, with proper dietetic and hygienic life.

C. W. Dahlenburg read a paper upon "Pseudo Leukemia." He said that it was essentially a disease of lymphatic tissues. It may spread throughout the body or confine itself to groups or chains of glands. The true nature of the disease is unknown. Certain features suggest an infectious nature, such as a rapidly fatal course, onset suggesting tonsillar point of origin, fever and exacerbations. Recent writers claim that pseudo-leukemia is a tuberculous process. Against this is the fact that the tuberculin test is negative and that the tubercle bacilli are not usually present. It has also been suggested that it is identical with lympho-sarcoma, but against this is the fact that the metastases occur in only one form of tissue.

Pathologically, there is involvement of the glands of cervical, axillary, inguinal, mediastinal and retro-peritoneal region. Also, all other lymphoid structures in body may show hyperplasia. The spleen is enlarged in 75 per cent. of the cases.

Symptoms.—Acute pseudo-leukemia may occur.

such cases are rare and must be distinguished from purpura, sepsis and acute leukemia. Usually, the disease is chronic, running over years. It may show gradual progression or remain stationary. Anemia, malaise, fever, chills, sweats may be present. Nasal obstruction and epistaxis may exist. Pressure of the respiratory passages may cause distress. Pleural effusion is sometimes seen. The cardiac action may be much disturbed. Cyanosis and edema may occur from pressure. There may be marked digestive symptoms. Upon the part of the nervous system there may be pain, anæsthesias, paræsthesias, paralysis and trophic changes.

Urinary symptoms may occur as albuminuria. The blood shows no characteristic changes. Late in the disease, a marked anemia develops. The picture is midway between primary and secondary anemias.

The *diagnosis* must be made from tuberculous adenitis. This may be difficult in the early stages. It depends upon the tuberculin reaction and microscopical section of the excised glands. From lymphatic leukemia, it is to be differentiated by the blood picture. Microscopic sections will also differentiate from lympho-sarcoma.

The *prognosis* is usually bad. Cures have, however, taken place.

Treatment.—Incipient, isolated glands should be excised. The X-ray may help selected cases. Arsenic should be the main medicinal reliance. Hygienic measures should not be neglected.

These papers were discussed by Drs. Levison, Gillette, Belding, Duncan, Tenny.

The Paulding County Medical Society met in Paulding, April 15. The program consisted of an address by Dr. McCaskey of Fort Wayne, on "Diabetes and Carbohydrate Metabolism." The speaker said that this is a vital topic in medicine. It is not ultra-scientific in character, but forms the essential basis for understanding the disease processes. Metabolism is the term used to express the changes going on in the body. Recently chemistry has come to the front as representing the most important factors in disease. We trace three distinct eras in recent advance in medicine. First, the cellular era. This is represented by Virchow and his collaborators. The microscope came into use and cell processes were most carefully observed and advanced ideas gained about physiology and pathology. Secondly, the bacteriological era, which rested on the researches of Koch and Pasteur. At this period the germ theory was developed and the effort made to thus explain all disease. Like the first,

it had a large substratum of truth. But the question arose as to how the germs acted. It was evident that germs were not necessarily present at the site of disease processes. It became clear that the chemical products of the bacteria were the real cause of disease. Germs could not themselves produce disease at all. Thirdly, the chemical era. Thus medical thought was brought to the next era since many observers began to delve into the chemistry of the body, and we have what I call the chemical era of pathology. Here now it seems we began to get at rock bottom facts of pathology. The term metabolism was first used by Schwann about seventy years ago. It covers all the changes that occur during the passage of the food through the gastro-intestinal tract; in other words between food and body tissue. This must all be understood in order to understand pathology. How, for instance, the proteid of meat becomes the proteid of the body. Oxidation was considered by the speaker and that chemical processes require the presence of water; the action of salts e. g. chloride of lime; and the need of iron that the red blood cells may perform their function. After the hydrocarbons comes the fifth group, carbohydrates. These are chiefly represented by the proteids. In this field we have the brilliant work of Emil Fischer and our knowledge of the action and composition of these complex bodies has extended by leaps and bounds. Now resulting from some pathological condition in the chemical processes the carbohydrates are not taken care of and there results the disease of diabetes. We can not define the term any better than we could twenty-five years ago, but we are on a better ground because we have a better knowledge of the processes that occur. Sugar is always present in the body to the amount of .1% and this admits of very slight variations. Carbohydrates come largely from starch; this is changed to dextrose and stored in the liver as glycogen. Now here we have a remarkable discovery that one-half of the sugar is stored in the skeletal muscles. Muscular action has thus another office, that of giving up this store as needed. Either too large a supply or too little storage results in a pathological condition. The excess must be discharged. The use of the carbohydrates is for the production of force of all kinds and of heat. It is an interesting metabolic phenomenon that an excess of sugar, after storage is provided for, is converted into fat. Oxidation of carbohydrates is a complicated process; requires something to hasten it. Recent discovery of an essential ferment in the muscles as well as an internal pancreatic secretion. Both together

required for oxidation of dextrose into force. Much more than twice as much dextrose is oxidized with two equal amounts of these two ferments. If either is wanting there is corresponding failure in the oxidation and more than .1% of sugar in the blood and then glycosuria. More than .1% of sugar will not stay in the blood. While in the circulation the chemical condition of sugar may be changed. Jecorria, the substance formed by the synthesis of dextrose and lecithin, was referred to. Kidneys are impermeable to sugar. Healthy renal epithelium dams it back. Disease destroys this impermeability. This is largely hypothetical, but we know we can produce transient glycosuria with phloridzin. Quite possible that changes in the renal epithelium produce diabetes.

Administration of 100 grams of glucose is a reliable test of glycogenic function of the body. If no glycosuria kidneys are healthy. To test glycogenic function of the liver give levulose. If liver can convert levulose it will dextrose. Polariscope is necessary to test alimentary levulose.

Clinically in diabetes we must first determine that the disease actually exists and not a temporary glycosuria. Then put the patient to bed, preferably in a hospital. Withdraw all sugar, starch. Give proteid diet, fat. Disappearance of sugar in the urine shows the case not a bad one. If after a time there has been no glycosuria give patient certain weighed amounts of, e. g. starch (bread, if you please). Determine if, after storage is provided for, glycosuria returns. If not, ascertain the amount the patient can take without getting glycosuria. Thus the treatment of diabetes is very largely dietetic. Sugar is a toxin. A small increase in the amount of the blood is injurious and produces various structural changes in the body. I is a curious phenomenon in this disease that after a time the renal epithelium again changes so as to block the passage of sugar and the patient has more sugar in the blood than previously. In these cases often various gastro intestinal toxemias and corrective therapeutics greatly helps the case.

A unanimous vote of thanks was given the distinguished guest for his entertaining and instructive address.

FIFTH DISTRICT

The Academy of Medicine of Cleveland held their fifty-fifth regular meeting at 8 p. m., Friday, February 21, 1908, at the Cleveland Medical Library. Program was as follows:

"Some Benign and Malignant Tumors of the

Female Mammary Glands, with Reference to Early Diagnosis," A. F. House. The essayist discussed the anatomy of the female mammary glands, laying particular stress on the lymphatic supply, and showing the course of the efferent vessels. Inflammatory infections of the breast derive, he said, their chief importance from their etiological relation to malignant disease.

Examinations of the breast for suspected tumor may readily and accurately be made by compressing the breast with the palm of the hand against the thoracic wall, when if the enlargement be inflammatory, nothing but a wormy sensation is detected, due to the swollen ducts and acini.

In seeking to detect adhesions of the gland to the pectoralis major, as in carcinoma, the breast should be moved in the direction of the fibers of the muscle, for if the pressure is directed across the muscle, the latter moves with the mass, and thus deep seated extensions of the growth are overlooked.

Adenoma, unmixed, is rare, and when present usually found in healthy young women between puberty and thirty-five. It is usually solitary and movable, hard and encapsulated, and about size of walnut. It is sometimes lobulated, similar to a lipoma to the touch, and while benign may become malignant and therefore should be excised.

Adeno-fibroma occurs in two forms, the solid and the cystic; both are encapsulated. The former is usually located superficially. The cystic variety contains acini dilated to form cavities; in its growth it causes atrophy of the gland by pressure. This form occurs later in life than the solid variety, between thirty-five and fifty, and grows much larger.

The clinical history of adeno fibroma shows little or no pain as a rule, though occasionally in nervous patients pain may be severe. The nipple is not usually retracted, though occasionally somewhat so if the central portion of gland is affected. The skin is seldom inflamed, though occasionally so in rapidly growing tumors; the glands are not often enlarged and the mobility of the growth is characteristic.

The treatment is purely surgical, the necessity of removing the entire breast depending upon the size and rapidity of growth, age of patient, pain and extent of lymphatic involvement.

Malignant tumors of the female breast constitute 82 per cent. of all mammary growths (Billroth). Sarcoma is rare; Williams found in 1081 cases of sarcoma only 94 in the female breast, with but 34 sarcomata. Paulson, 355, with 33 sarcomata; Dennis, 111, with 6 sarcomata; giving an average of 8 to 10 per cent. Sarcoma

arises from the connective tissue about the ducts (Adenosarcoma) or in that outside of the ducts (pure or solid sarcoma). Gross reports 170 sarcomata of the breast of which 68 per cent. were spindle cell, 27 per cent. round cell and 5 per cent. giant cell. The tumor begins usually in center, and often in the upper segment; the skin is stretched and may ulcerate. The veins are enlarged, and nipple flattened, though rarely retracted as in carcinoma. The growth sometimes remains small for years then and then may take on a rapid increase to an enormous size. The diagnosis of these small sarcomata is almost impossible.

The treatment is radical removal in all cases, as this operation gives a fair hope of permanent cure.

Carcinoma of the female breast is unfortunately one of the most frequent growths of that organ, and its malignancy is due to its unlimited progressive growth and extension. It may arise from any portion of the gland, though over 50 per cent. occur in the upper and outer quadrant. The mass is not encapsulated and on section shows a reddish gray or whitish surface traversed by net-like strands on bands of connective tissue, embedded in which is the softer cancer tissue.

Nothing is definitely known as to the etiology, as no specific germ has been demonstrated. The most frequent period of life for its appearance is between forty and fifty; it is rare before thirty and after seventy. Traumatism, over-lactation, pre-existing mastitis and heredity have all been maintained as factors in the production.

The tumor appears insidiously; painless at first and growing slowly in size, although infiltration of neighboring structures occurs early. The glands at the free border of the pectoralis major are first involved, then those in axilla, and lastly the supra-clavicular. Retraction of the nipple occurs in over 50 per cent (Gross) and this sign, though occurring in some other conditions, is very characteristic; its absence does not exclude carcinoma. The skin becomes involved and may ulcerate, or the tumor may project as a fungus mass. Progressive emaciation may appear early in some few cases, but is usually well marked later in the disease. The diagnosis in small tumors is often difficult in young females, and considerable care and patience are often required to successfully recognize the character of the tumor. The prognosis of malignant growths is always bad and without operation the average duration of life is but twenty-two months. (Winiwarter, Fischer, Esmarch.)

The only remedy for carcinoma of the breast

is its complete and early removal, and in doubtful cases an exploratory incision should be made and the character of the tumor investigated. Whatever method of operation, the object should be the complete removal of the gland, the underlying muscles and the glands and fat of the axilla.

Recurrence appears in a large per cent. of cases, usually within the first year, more rarely during the second and very rarely after the third. One patient (of the author) died nine years after operation with metastatic growth in the liver; another three years with similar metastasis.

Recurrence, however, is usually local as in neighboring lymph glands. Another patient is living and well nineteen years after operation, and three others, seven, eight and ten years, respectively. In these microscopic examination confirmed malignancy.

Delay is dangerous; early operation offers a good prognosis. The X-ray is said to retard the progress of inoperable cases and the author has used it during the past two years, as post-operative prophylaxis, but is unable after such a short experience, to give definite results.

"The Modern Babies' Dispensary," H. J. Gerstenberger. The object of the modern babies' dispensary is to lessen infant mortality.

After giving a resume of the means which various countries, France, Germany, England, Austria-Hungary, Belgium and America, had adopted to right this scourge of civilization, showing that America was again one-sided and far behind in this movement, the author demonstrated through statistics referring both to foreign and local conditions the various causes or the high death rate amongst infants. These statistics showed that it was the one-month-old, poorly situated, neglected, bottle-fed babies, especially during the summer months, who made up the bulk of the deaths occurring during the first year. The author concluded from these facts that the supplying of clean milk even modified to suit varying ages, in separate feeding bottles, would eliminate but one of these causes, and therefore, the mortality could not be reduced as much as it might be through other means. Statistics taken from the health report of Cleveland for 1907 showed 519 children as having died from gastro-intestinal disease. If this number were subtracted from the total number of deaths under one year occurring from all causes there still remained a rate of 136 per 1000, which is considered higher than necessary. To overcome this high infant mortality rate babies should have first of all, not clean cow's milk, but what they ought to get and can get in 80 to 90 per cent. of the cases, namely their own mother's breast milk. Second, that to

be successful in this we must begin early, that is at the birth of the child or better still before the child is born, by instructing and caring for the needy mother-to-be as is done in France and Germany. That field really belongs to the obstetrician and it is their duty to awaken to it. Third, to see that clean cow's milk is produced for the children who really have to have this product. Fourth, in every case the object should be to practice prevention at the earliest possible date by persons having a social and medical training, viz., visiting nurses. Fifth, that the work be directed from a dispensary under direct medical supervision.

The author then described an ideal institution for this work as consisting in: First, a dispensary, sociologic and medical; second, a milk laboratory; third, a hospital, with chemical, clinical, pathological laboratories; fourth, isolation house; fifth, branch dispensaries in the crowded districts of the suburbs; sixth, convalescent homes and fresh air camps, especially during the summer.

He then described the features of the Cleveland Babies Dispensary, which opened in July, 1906, and the manner in which the various parts were operated together with the results obtained. The total mortality was 12.5 for 19-20 months, including two summers, although the dispensary draws most of its material from the worst district in the city, and although the general rate for the city was 18.5. Of the 12.5 per cent. total mortality, 2.7 per cent. died under the care of the Babies' Dispensary, where as 9.6 per cent. had died under the care of outside physicians or institution. Or 77 so-called prophylactic cases, e. g. children who came to the dispensary at a comparatively early age and in normal condition. three had died and all in outside care, making a mortality rate of 3.8 per cent. One died with cerebro-spinal meningitis, one, and this one had been to the dispensary but once in March, 1907, died from a cause not to be ascertained in the care of a private physician during August, 1907. A third was a healthy breast-fed child whose mother suddenly became insane. The mother was taken to the State Hospital and the child left in the care of neighbors, where she contracted an infectious intestinal diseases and died in another institution a few days later.

The dispensary limits its work to needy people. Following this principle 17.2 per cent. of 770 patients were discharged because of good financial circumstances.

"Obscure Fever in Infancy and Early Childhood." John Lovett Morse, Harvard University Medical School, Boston, Mass. A daily rise of temperature above 99.5 degrees F. in infancy and

early childhood is abnormal and the manifestation of some diseased condition. Elevations of temperature, however, occur from slighter causes at this age than later because of the greater irritability of the nervous system, and are consequently of less importance. Endocarditis frequently causes a prolonged elevation of temperature without any other change in the symptoms. Uncomplicated eczema also frequently causes prolonged fever. The so-called fever of the newborn is almost invariably a manifestation of sepsis. Dentition does at times cause elevations of temperature in infancy, both acute and chronic. In the vast majority of instances, however, the fever which is attributed to dentition is really due to some disturbance of metabolism or to intestinal intoxication. The absorption of toxic substances from chronic inflammation of the tonsils and adenoids is a very common and unsuspected cause of long-continued fever. Otitis media, if not the most common, is certainly one of the most common causes of fever of obscure origin in infancy, as in many cases the fever is the only symptom outside of those of general discomfort or of indefinite pain. It is very generally overlooked because of the general misapprehension as to the symptomatology of otitis media in infancy and the neglect of examination of the ears. Bronchial adenitis as well as cervical adenitis is probably not infrequently the cause of obscure fever; the diagnosis, however, is extremely difficult. Another cause of obscure fever, both acute and chronic, more common in infancy than later, is bacterial infection of the urinary tract, usually secondary to some other disease. The fever is usually irregular and often high. As a rule there are no symptoms pointing to the urinary tract and the diagnosis is first made when the urine is examined. The tendency is to attribute every long continued fever in infancy and early childhood for which it is impossible to find any plainly evident cause to hidden tuberculosis. This is, however, probably comparatively seldom the cause of continued elevation of temperature in early childhood. In the majority of cases in which the fever is supposed to be tubercular in origin, it really is due to disturbances of digestion or metabolism. The explanation of this comparative infrequency of tuberculosis as a cause of obscure fever in infancy and early childhood is presumably that at this period of life tuberculosis tends to dissemination and a rapidly fatal course. Chronic latent cases are consequently relatively rare.

Long continued elevations of temperature without very evident cause in infancy and early childhood are probably most often due to a mild grade:

of intestinal toxæmia. The temperature is usually not very high and it is often normal in the morning. It may run for weeks for months with practically no intermission; in others it is intermittent, being elevated for days or weeks at a time, then normal for days or weeks, and so on. In some cases the general condition is more or less impaired, in others not at all. In many instances there are symptoms of disorder of the digestive tract; in others these are almost entirely wanting and in others they are intermittent, while the temperature is constant. Intestinal toxæmia is especially likely to develop in children who are overfed or improperly fed. In most cases the trouble is due to decomposition of the proteids, but sometimes to an excess of carbohydrates. These cases yield fairly promptly to milk and starchy diet, the object of this diet being to change the intestinal culture medium and thus modify the intestinal flora. In rare cases the temperature is due to milk and continues as long as milk in any form is given. This milk idiosyncrasy is never a primary, but always a secondary condition.

Finally, there is a class of cases of continued fever in infancy and early childhood in which the most careful examination fails to find any cause for the fever, in which no modification of the diet is of any avail and in which the general condition is unaffected, the child being apparently well and gaining normally in weight. The temperature may remain elevated for many weeks, or even months, and finally cease without any cause having been discovered. The most reasonable explanation of the fever in these cases is some obscure disturbance of metabolism. Such cases justify the conclusion that if a careful study and careful examination of the child does not reveal the cause of the fever there is, in the vast majority of cases, nothing serious the matter and no cause for anxiety.

Dr. Stern presented a case of club foot in a child three years old. Case had been treated since birth. No operation done with the exception of one tenotomy. Emphasized the importance of early treatment.

Dr. Laffer: Case of neuritis in sixteen-year-old girl with contractures of hands and feet. It came on while she was in perfect health, not following any illness or any exposure to any toxic thing that we could find out. Contraction of the fingers of the left hand into the palm was the first sign of ill health. Then she began to have pain in the left shoulder, the same side as the hand affected. The pain in the shoulder became much more extensive, extending through the arm

and fingers, and the ulnar side of the hand especially, and with it she had tingling, stinging sensation and paresthesia. The next couple of days she had these contractures so frequently that the physician put a splint on the hand. Soon the other hand became affected, then the feet. Since I saw her she has had a number of spasmodic tonic contractures, causing flexion of fingers of both hands and flexion of toes and extension of foot. Contractions can be straightened out by attendant, although this causes great pain. The contractions recur again after hours or days. All branches of the brachial and sacral plexus are tender to touch. All the nerves of the hand and forearm are paralyzed and atrophy is very evident. She had these contractures come on again last night in both hands. It has been six weeks since they started. Contractures have occurred in the toes. The toes would be flexed and the foot extended on the leg. Is unable to recognize pain sensation in both hands and wrists and in left hand there is loss of temperature sense. There is hyperaesthesia. There is inco-ordination and loss of muscular sense. Is beginning to show some atrophy. The legs do not show anything but hyperesthesia. She has complete paralysis of both hands for all motion. The face has been slightly affected. She has tenderness over the nerve trunks. I thought perhaps it was a case of tenonitis. Of course, one thinks of a hysterical contracture. Now, whether that is a fact, being preceded by the neurosis, I do not know, but am inclined to think not. Contractures occur during sleep, but the way they occur associated with neurosis instead of being suggested by the neurosis makes me think it is probably one of those rare cases of this associated with neurosis.

I have another case of neurosis here of some interest. This man is now suffering from a second attack of alcoholic neurosis which has been peculiar, as it has involved the left side of his body, paralyzing the extensors of the forearm and of the foot on the left side, the perineal group of muscles and the radial. It is very unusual for alcohol to produce such a neurosis. The paralysis is quite incomplete now. He has had it for some little time, but you can easily see that he has great loss of power on extending the wrist and foot. He was very helpless with the first attack, this attack being also limited to the left side. It is usual for the paralysis to affect the muscles that are used the most, but he is a right-handed man.

This other patient is of great interest. He is a painter, sixty-four years old, and he painted pretty steadily for forty-one years. He quit

painting two years ago. Since 1881 he has suffered almost continuously with paralysis of the perineal group of muscles. His arms have never been affected, never showed the slightest weakness or paralysis at any time. Did not quit painting when the disease came on, only when the season would be dull in the winter time. By the time the reason opened up again he would be pretty well recovered from this paralysis. He did this repeatedly—offered the same insult to his nerves until finally they failed, so now he has a very peculiar condition of the paralysis of the perineal group, showing how we may have a permanent paralysis so closely limited to one group of muscles.

Dr. Hoover: There is one point of interest in this first patient; that is, the possibility of spinal cord lesion being responsible for the exaggerated contractures, of seeing this in the early stages of tabes. I had a case this summer in which we could produce very violent contraction of the gastrocnemius by merely irritating the muscle. We have at present at Lakeside a woman suffering from alcoholic neurosis in whom we did a lumbar puncture and found marked increase in the lymphocytes. I think probably if one would do a lumbar puncture in that girl one would find a marked increase in the lymphocytes.

Dr. Laffer: With regard to the point Dr. Hoover has raised, they have found by exposing animals to the fumes of salts of lead that they can make very great changes in the anterior horn. This point, of examining the spinal fluid for an increase of cells is well taken.

Dr. Metzenbaum: Woman forty-two years old, who six years ago had a lupus of her face; curreted two or three years after, treated by the X-ray and healed up. At that time had penetrated through the ala nasi. Dr. Ingersoll and Dr. Lincoln examined it and said there was no more growth in the nose. Then recurred and has been excised several times since. Then under X-ray treatment. Came to me a year ago with a tremendous growth on the side of her nose, which was unquestionably an epithelioma. Dr. Crile suggested excision. I then curreted it and burnt with the cautery, then followed out with a tube of radium, and you can see the good result. Now, about fifteen or sixteen months since, well. Made microscopical section.

Dr. Stone: This patient is from Dr. Hoover's service at Lakeside. The first point to which I wish to call attention is the rather misleading history which the individual gave. He came to the dispensary about two and one-half weeks ago complaining of a tumor in his left groin, vomiting, and constipation for the last four or five

days, and general bad feeling, which he had, also pain in the abdomen. When the man was questioned a little further it was found that he had had a hernia in the left inguinal region about ten years ago, kept in place by means of a truss. Four or five days preceding his coming to the dispensary this hernia became quite pronounced and he had not been able to replace it. Since that time he had had marked abdominal pain and considerable vomiting. The patient gave no further history in regard to himself except to state he was a baker by trade. It was found on examination that the hernia in the dorsal position could be replaced, and temporarily he was looked upon as a case of strangulated hernia with symptoms of intestinal obstruction. However, when routine examination was made it was found that he had a definite blue line about the margin of his gums, and on questioning him more about his occupation, it was found that he had been a painter for a period of six or seven weeks before coming to the dispensary and that his previous occupation had been that of a baker. The patient was treated then as a case of chronic lead poisoning, and the intestinal obstruction was very satisfactorily explained upon the theory of the cramp of the bowel in that condition. It was not a case of intestinal obstruction due to the strangulation of a portion of the bowel, but it was due very likely to the chronic lead poisoning. The man has in addition to the ordinary lead line, which passes about the margin of the gums and the teeth, a very definite pigmentation of the mucous membrane of the lower lip. This is of quite extensive character, a very unusual occurrence in chronic lead poisoning. In fact, some claim that the occurrence of a pigmentation other than that about the margin of the gum and teeth does not occur in lead cases. However, it has been reported that there may be a definite deposit of the lead in the mucous membrane opposite a portion of the jaw where there is considerable amount of pyra. In this case there was a very decided pyra of the lower teeth, and it was directly opposite this in the mucous membrane of the lower lip that this pigmentation of the mucous membrane occurred. The third point was that when the man entered the hospital there was absolutely no sign of any paralysis. During the last eight days has been complaining of some pain in the left arm and a slight amount of loss of power in the extensor muscles of the forearm. Possibly we then see the early stage of the paralysis.

Dr. Oswald reported a case of paroxysmal hemoglobinuria. Patient took quinine and spent a month at Mt. Clemens. Urine has no albumin

in it, but cells of dark urine contain albumin. Sample almost black.

Dr. Hoover: I would like to ask about the number of attacks during warm weather. It is interesting to see how promptly the hemoglobin and hemaglobinuria disappear. Beginning at 10 o'clock, at 3 o'clock the patient passed urine a second time with no trace of hemaglobinuria, so that evidently the solution of the blood pigment within the corpuscle takes place within a short time. With every attack he gets much pain and swelling of the spleen. No jaundice after attack. The problem with this man we are trying to solve is whether the red blood corpuscle or the plasma itself is at fault in causing the solution of the blood pigment. An interesting thing in this case is that the man was a German and had been in this country five years. He went to Saginaw where there were swarms of mosquitoes and ever since then had had attacks. It is claimed by some writers that ligation of the index finger could produce a hemoblobinuria. We ligated his arms and put both arms in ice and salt for some time, but even with that could not produce a hemoglobinuria. This attack brought on by sitting before an open window for about an hour.

Dr. Hoover: This is the X-ray of a child about seven years of age who has an atrophy of the muscles of the thigh, a very slight atrophy of the muscles of the leg, shortening of the leg. The X-ray shows the atrophy of the muscles of the affected side and shows a much smaller femur, the head smaller, the acetabulum very much smaller, and dislocation backward and upward. The question arises whether this is a congenital dislocation of the hip or whether the child has had a poliomyelitis anterior. The child had never been ill except shortly before five months of age, when it seemed to have fever. The doctor thought it was pneumonia, but he broke it up. Although the child has the atrophy the reflexes are perfectly good. Absolutely no sensory disturbance. I think one would have reasons for saying that this condition of both the muscles and bones is a congenital affairs. Of the various medical men, about one-half have said that the child had a congenital dislocation of the hip and the other poliomyelitis anterior.

Dr. Bauman: I have seen two or three cases of this kind. I think there is not much doubt that this is a case of dislocation, otherwise the child would have had quite a considerable paralysis when six months old. Quite a disability of the leg would have been noticed. It seems to me to have been a case of dislocation.

Dr. Stern said that he thought it was a dislo-

cation of the bony structures as well as a congenital dystrophia.

R. A. Boldt, in the absence of Dr. Bunts, presented a specimen of melanotic sarcoma (which had been removed from the axilla) with a large gland. Metastasized from a small pigmented mole removed from the back about five weeks ago.

Ashtabula County Medical Society held their regular meeting Tuesday evening, April 7, at the Business College. The meeting was well attended and two new members were taken in the society.

A. W. Hopkins read a very able paper on "The Physician and the Board of Health," which was discussed by Drs. Warner, Leet, Tower, Flower, Perry and Battles. Dr. Hopkins showed in his paper many instances where the physicians by saying to the patients that he thought the quarantine could be taken down, even if it had been up only a few days, thus injured the good work of the board of health, and the actual purpose of the quarantine, as it is much easier to handle people if they know that a quarantine means so many weeks, even if it is a mild case. In every instance every physician should know that a quarantine means so many weeks.

Academy of Medicine of Cleveland, Clinical and Pathological Section. The forty-ninth regular meeting was held on Friday, March 6, 1908, at 8 p. m., at the Cleveland Medical Library. Program:

"Blennorrhoea of the Eye from a Medico-Social Viewpoint," J. Stotter. The essayist said in part, the severity of blennorrhoea oculi may not always be judged by the bacteriologic findings. Mild cases occur due to gonococcus infection and severe ones from the presence of other bacteria. In spite of the marvelous advances in ocular therapy, Graefe's treatment remains as the one assurance of cure of this condition in the infant, at least. He quoted Prof. Fuchs, of Vienna, as still convinced of the efficiency of silver nitrate, and T. B. Holloway, of Philadelphia, as recording fifty cases of blennorrhoea neonatorum treated on this plan with a recovery of 88 per cent.; 12 per cent. showed complications of the cornea. In adults, 25 per cent. resulted in corneal involvement, a fairly good showing for a group of unselected cases. He further quoted Holloway as stating of 58 eyes affected with some kind of corneal involvement, 8 were enucleated, 28 were blind or had but light perception, 10 had a moderate reduction of vision, while in 19 sight was but slightly impaired or normal. Hence, if the cornea was involved, a practical

loss of vision occurred in 50 per cent. of the eyes affected.

He further quoted Adams, in October number of the *Ophthalmologische Klinik*, as advising the application of a 10 per cent. blenolenicet salve, made up of finely powdered aluminum aceticum and euseline, the latter protecting the cornea, while the lenicet coagulates and diminishes the secretion. While not having tried this treatment the essayist was favorably impressed with its merits in spite of the familiar trade mark, "made in Germany."

The essayist then detailed the case of an infant with a severe case of blennorrhoea neonatorum which a midwife had treated for four weeks before calling in medical aid. One eye, after six weeks' treatment, recovered with partial maculae, while the other had to be enucleated.

He then related two cases, one of a man twenty-four years and the other a girl of fourteen, upon whose eyes he operated for conditions the result of improper treatment in infancy by midwives. He referred to the recent tragedy at Ravenna, Ohio, where a father, driven to insanity by the blindness of his son, killed both the child and himself, a tragedy, he stated, as due to the consequence of an unattended or ill attended blennorrhoea neonatorum. The person responsible in this instance was not a midwife.

He drew attention to the remarkable results of proper treatment in the Vienna clinics, as illustrating the value of proper treatment and urged the responsibility of the medical profession in securing better health regulations for protecting the eyesight of the new born, in requiring midwives to report immediately all cases of redness or swelling of the lids of the children under their care.

DISCUSSION.

Dr. Lauder: The paper presented is worthy of much consideration. Statistics show that of the number of blind in the world—that is in the civilized world—twenty-five per cent. is due to blennorrhoea, while in Europe alone fifty per cent. is due to this disease. So far as legislation is concerned, most of the European countries have made blennorrhoea a reportable disease, and in twelve states of our own country it is compulsory to report it. If the law were enforced it would bring the midwives to time.

Dr. Gerstenberger: Any doctor that does not know the use of silver nitrate in cases of blennorrhoea should be ashamed of himself. The midwives should be made to pass an examination.

Dr. Stotter, closing discussion: We can not make the midwives recognize such diseases but they should understand that whenever they see an inflamed eye they should call a physician. The midwives of Europe understand this. I have treated a child three days old with blennorrhoea,

when I was called on the second day. The child has been making a good recovery. The point I want to bring out is that midwives should be compelled to call a physician.

"The Etiology of Ectopic Gestation," Charles Dickens Williams. From a clinical and operative standpoint, the literature, dealing with this anomalous condition, is found to be somewhat voluminous. On the other hand, the histopathologic phase of it has been either neglected or relegated to the background.

It is difficult in most cases to recognize the exact lesion or abnormality accounting for the occurrence of a tubal pregnancy. This is especially so after the condition has progressed so far that the original anatomy of the tube has been destroyed or so altered that the recognition of the factor predisposing to the creation or development of the tubal pregnancy is obscured or obliterated.

It appears to me that we must associate this interesting condition with the most common lesion presented by the involved tube, as well as the opposite one, which is capable of obstructing and preventing the entrance of the ovum into the uterine cavity.

Clinical observation shows in most cases that an inflammatory reaction of the fallopian tubes has preceded the onset of the ectopic pregnancy.

Histopathologic examination revealed in every case we examined that an inflammatory process either preceded or accompanied the tubal pregnancy. Not only did the tube which lodged the fertilized ovum show evidences of a pre-existent or an accompanying inflammation, but the tube of the opposite side, when removed, presented similar changes.

The findings of Opitz (*Zeit. f. Geb. u. Gyn.*, 1903, Bd. XLVIII) confirms what we have noted in our histopathologic study of these cases. In a series of twenty-three cases we found constant changes and formations in every instance.

A histologic examination of both fallopian tubes is of more value in the explanation of the etiologic factor or factors than simple clinical observation.

J. Bland-Sutton (*London Lancet*, Dec., 1904), in an examination of many records and specimens has found no authentic record of a case of tubal pregnancy in what are called the lower animals.

Schauta, Kuster, Duhrssen and others believe that changes in the tubes incident to a gonorrheal infection predispose to tubal pregnancy. Other infections play their part although the changes induced by the gonococcus of Neisser are more extensive and more conducive to conditions which may obstruct the ovum in its tran-

sit toward the uterine cavity. A tuberculous process does not produce the ideal conditions for the retention and development of an ovum within the tube except possibly in the later or healing stages of the process.

The frequency of gonorrhea in the human being, with the almost entire absence of tubal infections in the lower animals, would tend to explain the frequency of tubal pregnancy in the former. We have found the cilia of the epithelial cells of the tubal mucosa always present in part, as also the muscularis, though the latter is generally altered and diminished in amount. The moderate destructive changes are, however, insufficient in themselves to account for the retention and development of the ovum in the tube.

By the coalescence and union of the folds of the tubal mucosa, loculi and canaliculi are found which are readily demonstrable upon histologic examination. In the canaliculi the broader and more patent end is toward the celiac ostium of the fallopian tube.

These epithelial-lined channels vary in number from two to eight and upwards and to them I have given the name of false diverticula in contrast to true diverticula, very few of which are met with. It is in these diverticula that we believe the ovum is sidetracked, so to speak, retained and developed.

These offshoots at times extend a considerable distance into the muscularis approaching very closely the peritoneal surface of the tube. Thus it is possible for very early rupture of the tubal wall with the extrusion of the ovum to occur and to be attended by slight injury to the tube and very mild symptoms. The site of the ovum along the tubal wall in a false diverticulum determines, we believe, whether a rupture of the tubal wall or a tubal abortion through the abdominal ostium takes place.

We have been able to demonstrate microscopically the presence of these false diverticula in every case of ectopic tubal pregnancy occurring in the gynecologic service of the Lakeside Hospital, not only in the tube lodging the fertilized ovum, but also in the opposite one when removed.

Opitz has also shown their presence in every case in the microscopic examination of a series of twenty-three cases in which serial sections of the tubes were made.

After a review of the literature upon the etiology of tubal pregnancy and an exhaustive study of the pathologic conditions associated with it, both from a clinical and histologic standpoint, we are lead to conclude that the formation of false diverticula resulting from a salpingitis is

the most constant anatomic change or lesion found in the fallopian tube capable of impeding the descent of the ovum and producing a tubal pregnancy.

Many of the theoretical causes advanced occur too frequently to account for the many cases of ectopic pregnancy met with. Other conditions, given as etiologic explanations, can be demonstrated neither macroscopically nor microscopically and are quite untenable. We are inclined to believe that in 95 to 98 per cent. of cases of tubal pregnancy the ovum lodges in a false diverticulum from which its escape into the uterine cavity is impossible. Extrusion later occurs in the direction of least resistance.

DISCUSSION.

Dr. Parker: I was very much interested in the doctor's paper. In a case of my own, within six months, or a few days after six months, I made a second operation for an ectopic gestation. The interesting thing in this case was that the woman was living with her second husband. With her first husband was never pregnant, and remained a widow for five years, then married and within eighteen months had this experience. This man admitted gonorrhea.

Dr. Williams, closing discussion: Dr. Parker's was a very interesting case, because in many instances when the tube is conserved the operator has to remove an ectopic pregnancy on the opposite side, so in case you are saving the opposite fallopian tube the patient must take the responsibility for the occurrence of an ectopic gestation on that side, and if the patient prefers to take that risk, I believe in saving it, but by all means save the ovary.

"A Case of Acromegaly with Thrombosis of the Superficial Veins," John Phillips. The case reported was that of a laborer, aged fifty-one, admitted to Lakeside Hospital, May 28, 1906, suffering from chronic myocarditis with evidences of failure of compensation—shortness of breath, swelling of his feet, dilated heart and enlarged tender liver. Inquiry revealed the fact that during the last ten years his features had changed, his voice had become much hoarser, and his hands and feet had become much larger.

The patient was a man five feet eight inches high, weight 210 pounds. His skin showed very free perspiration. He had a marked cervicodorsal curve and his abdomen was very pendulous. The skull presented the usual changes found in acromegaly, viz., the large occipital proturbance and frontal eminences, the prominent malar bones and the lower jaw enlarged so that it projected beyond the upper jaw. The alveolar processes were thick and there was distinct spacing of his teeth. His tongue was very much hypertrophied and the thyroid cartilage massive. The thyroid gland was small. The changes in trunk, hands

and feet were those commonly observed in this disease. The urine showed albumin and casts. The optic discs showed nothing abnormal, but there was marked limitation of the color fields.

One point of importance in this patient was that on compressing the wrist lightly there was soon noticed a distinct flushing of the hand, the veins being distended and the arteries throbbing, but without pain. This vascular change was more marked in the feet than in the hands, and was very similar to the condition present in a case of erythromelalgia seen by the writer a few months previously.

The extraordinary feature of this case was that eighteen days after admission to the hospital a small, symmetrically situated, slightly reddish induration 2x3 cm. was noticed in each forearm. The tenderness and swelling disappeared in about ten days, leaving only slight thickening. A few days later similar tender indurated areas appeared in each calf about ten inches below the knee and other just above the left ankle. These also were definitely associated with the superficial veins. In all there were seven of these thromboses.

Very little is to be found in the literature regarding the cardio vascular changes in acromegaly. They have usually been looked upon as a coincidence and not in any way associated with the disease itself. J. B. C. Fournier in 1896 made a careful study of the heart in acromegaly and noted two forms of cardiac alteration. (1) A simple cardiomegaly, the heart participating in the augmentation of volume of the other organs. (2) A true sclerotic myocarditis associated with generalized arteriosclerosis. The caliber of the blood vessels especially of the veins is usually increased. Varicose veins are very common. Some have described three phases in the lesions of the vascular system—dilation of the vessels, thickening of the walls and obliteration of their lumen.

DISCUSSION.

Mr. Metzenbaum: Since the pathology of acromegaly is supposed to be due to the anterior lobe of the pituitary body, Parke-Davis have put out in their laboratory an extract of the pituitary body, which seems to have similar properties to that of adrenalin; that is, raises the blood pressure and has hemostatic properties. I speak of the physiological effect.

Dr. Phillips, closing discussion: I am very sorry to say that my patient died a few days after and I was unable to obtain an autopsy.

In regard to the use of the pituitary extract, that has been tried by various observers with no effect. However, that does not prove that it is due to a lesion of the pituitary bodies.

"The Curative Properties of Radium," C. B.

Parker. I have not prepared a paper but I have here a few notes. I think I was the first one to bring a specimen of radium to the city and use it therapeutically. I thought it only fair after a certain number of years to give you a resume of what I found it will and will not do. After a few years the first enthusiasm in the use of a drug dies down and we can get perhaps a little nearer to the real facts.

A little history may be of interest. Dr. McKenzie Davidson, professor of ophthalmology at Aberdeen, was the first to use this agent in medicine. I had the pleasure of meeting him at the Madrid meeting of the International Medical Congress, and just after he went home his attention was attracted to radium. At the time I met him he had just given up his professorship and come to London. He was a South American by birth, of English parentage, and served at the Charing Cross Hospital. He was interested in the X-ray, and it was in consulting one of the English scientists as to the dosage of the X-ray that he suggested his trying radium. We were not able at that time to determine, although perhaps you can now, just the dosage in treatment by the X-ray, so he wanted to find out how to accomplish this. Radium had been discovered a short time before by the French scientists. A small quantity was placed in Dr. Davidson's possession. Naturally, the first use of it was in a case of carcinoma. I saw one of the first three cases in which he was using it. The morning I called on him he was very excited, having just received a letter in regard to a case of cancer from some one in the country, directed to Portland Square to the radium doctor.

The first tube I had was very feeble. I received it through the courtesy of Dr. Davidson from the English chemist, and at the time it was the only one available. A month later I received one of more potential power. The first was pure radium, the second bromide of radium, which is the one I have used, considering it stronger. I have used it in three cases of epithelioma of the lip, five cases of carcinoma, two cases lupus vulgaris and in three cases of what I chose to call rodent ulcers—a chronic, indolent, non-healing ulcer—and it chanced that two of these were at the angle of the nose and on the left side. The first case that I treated was a perfectly hopeless one, just after I came home. I mentioned to a friends that I had this radium and was asked to see a lady with inoperable carcinoma of the breast. It was very extensive, the axilla full and arm swollen, a perfectly hopeless case. It seemed unreasonable to expect that we could accomplish anything, but they insisted, and it was used sev-

eral hours a day without effect. That has been my experience with extensive carcinoma; I have accomplished nothing. I have kept it on by shifting it every hour nearly all day. In very extensive carcinomata in various parts of the body (one or two of the uterus) I have accomplished nothing with radium.

The second case that I treated was about the first of 1904, just after the January vacation. This was an old Hebrew gentleman of patriarchal appearance, seventy-three years old, with an ulcer, indolent and non-healing, but without the characteristics of epithelioma—without the crater-like appearance and elevated indurated edges. The ulcer was a little larger than my thumb nail, perhaps an inch across in one direction and less in the other. It had already eaten into the ala of the nose and into the lip. He could not come to the hospital every day, and about three times a week as an average he had the bromide of radium just laid upon the surface for an hour at a time. Before Easter he was well. He had had this five years at that time. This winter I have had to cure him again. This time the ulcer was not quite so large and it did not take so long. He came back this fall and told me that he had been perfectly free for about a year, then noticed a little blister, then a dry scab which came off, and when I saw him the ulcer was perhaps one-half the original size. He has just been cured again, and, unfortunately, this I believe suggests the limitations of this remedy.

Now, as to the case Dr. Metzenbaum has just shown us, I don't wish to suggest what the result will be, but I imagine the doctor will have a chance to apply his radium to this case again at a later time.

With regard to epithelioma of the lip, I tried it on three. In each case there seemed to be at first quite marked improvement. Two of these cases I operated because the patients became dissatisfied and wanted a more rapid cure. The other patient did not do well. I was unable to see the patient each time myself; he complained that it was used by some one else, and I lost track of him. He may have been cured later by Dr. Metzenbaum. In these cases of epithelioma I am not very enthusiastic as to the ultimate results of radium.

I have had two cases of ordinary lupus in which radium has been used, one a young lady whose history goes over a number of years. I remember seeing her perhaps fifteen years ago, quite a girl, with two or three tubercles in quite a deep pit by the side of her nose. It had been diagnosed as lupus by several, and I think it was. At that time we used the X-ray. First I treated

it in the old-fashioned way by taking something and rolling it around in the depth of the cavity, and you know how promptly nitrate of silver will arrest the spread of lupus, when used with cod liver oil and hygienic treatment. This girl got well but every once in a while it would break down. It was one of the early cases here and under the X-ray she did beautifully. In a few weeks she was sent back to me, saying, "Now you see what the X-ray will do." Within a year the doctor had another opportunity to show what the X-ray would do. During these fifteen years she has had relapses. I have had her under the radium once. She has left the city, but I feel she is not ultimately cured.

I would not be without the radium. I would not like to feel that we had not it as a therapeutic measure. I think it is only applicable to the smaller ulcers, the smaller diseased areas; when you come to large surfaces it does not seem to do. I am now using it on a woman with a very large epithelioma, starting through the inner canthus of the eye. It is used almost all day. At first the report was just as always, that there seemed to have been great improvement. You who have had experience with the X-ray and Coley's toxins in malignant diseases know that the first treatment seems to decrease the growth. I do not think this is in the tumor itself, but in the surrounding area, and later it blooms and grows much more rapidly. I think that in these small chronic ulcers, which I have been in the habit of calling rodent ulcers, that it seems in every case to have healed the ulcer. In my experience every one has healed, and one has returned. I have now two men under observation. My experience with this old man, having had a recurrence in the first three years, has led me to have the other two men come every month and take one treatment. I am going to see if this constant exposure will save them from relapses, for otherwise I feel, from my experience at least, that measured by years the treatment by radium is not as curative as we are lead to suppose by the literature that we read; but if you read that literature you will note that the time is usually very brief. I wish to state very clearly that I think there is nothing you can apply to rodent ulcers or lupus that will produce as prompt results as the radium ray. Perhaps we have not had time enough now, but I do not feel from my experience that we will not have to repeat the treatment. I do not think it has a permanent curative effect on very large carcinomatous masses—inoperable masses—and in the treatment of epithelioma. In my three cases I have given the result, and the result, had we not operated,

I believe would have been similar to the other, that there would have been a possibility of a return of the growth within three or five years. I think we are in the habit, in the treatment of malignant diseases, of thinking we accomplish a great deal more than we do. For example, in breast carcinoma the minimum is about three and one-half years and the maximum about seven. Now, saying it does not come back in a year, we have accomplished something, if not in two years, we have done better, if not in three years, we report it as cured. Now it would be a great deal better if we waited until seven years.

Dr. Wyeth gave a very interesting report of the end results of sarcoma. The gist of the whole thing was that he had one case living over ten years after operation for sarcoma. All the others had died, many of them, of course, in a limited time.

Now the result in this case Dr. Metzenbaum showed us is a very beautiful, and I believe a very reasonable, result—just what I would expect in a limited sized growth in six weeks to a year. Now certainly that is very remarkable. I think in the next three, five or seven years, the question will be is that a permanent relief. I have some doubt of it so far as my experience goes. I hope that this is not so and that the future will show greater results from the use of radium than I expect.

DISCUSSION.

Dr. Metzenbaum: I think Dr. Parker stated the thing definitely. We can state with absolute precision that it has no effect in those things really malignant, and the only effect is in those which may be stated indolently malignant, such things as rodent ulcers. Once the glands are involved I think the radium is absolutely useless, and epitheliomata which have invaded the mucous membrane don't react at all to the radium. I think in those that we can call epithelioma—those growths about the eyes and nose—in those people who have passed the middle age of life, they respond well to the X-ray, but I think better to the radium, and remain well for four years and a little over four years. The lupus vulgaris I have remaining well after four years. Ordinary rodent ulcers also respond better to the radium than to the X-ray and will remain well sometimes four years, sometimes only six months. But in those growths really malignant I think there is no permanent effect. I have one case of four years' duration treated by the X-ray; he has a lupus vulgaris involving a part of the nose and cheek, which has responded well to the radium treatment. These are the typical epitheliomata, or really rodent ulcers, that occur on the forehead and angles of the face. In all I have seen a little over thirty patients of this type who have been healed for from six months to four years. Dr. Laffer referred a patient to me with metastatic sarcoma in the mouth. Her persistent use

of the radium within nine or ten days caused a very violent ulceration of the mucous membrane.

Dr. Lowenthal: I should like to ask Dr. Parker if he has used any of the special emanations?

Dr. Parker, closing discussion: In answer to Dr. Lowenthal, I have had no experience in that line. I have seen something of the literature, but had had no experience myself.

At the forty-eighth regular meeting of the Clinical and Pathological Section of the Academy of Medicine of Cleveland the program presented was as follows:

"Nystagmus and Its Relation to Diagnosis of Lesions of Inner Ear and Cerebellum," W. B. Chamberlain, D. D. Labyrinthine and cerebellar disease both produce a nystagmus of like character and differing from the nystagmus found in other conditions. This nystagmus is rhythmical—that is, successive cycles are similar but each is composed of two movements, a slow deliberate excursion and a quick, jerking return. In the common pendulous or undulating nystagmus both movements, the excursion from and the return to any fixed margin point, are equal both in extent and in velocity. Rhythmical nystagmus possesses other characteristics. It is usually horizontal or rotary in character and is increased by place in the direction of the quick component—decreased or destroyed by glances in direction of the slow component.

A circumscribed labyrinthine suppuration causes a rhythmical nystagmus with quick component toward the side of the involved ear. A diffuse suppuration give a nystagmus of like characteristics, but with quick component toward the side of the sound ear.

In cerebellar abscess the nystagmus is directed toward the sound ear in the overwhelming majority of cases. In a small number in which the function of the cerebellum is completely destroyed, the quick component is toward the sound side.

The localization of the disease in the labyrinth or in the cerebellum can be accurately determined by turning on a revolving chair or by injecting the ear with hot or cold water. Hot water gives nystagmus with quick component toward the injected ear—cold water gives the reverse. Neither have any effect if the function of the labyrinth is lost—as in a diffuse suppuration.

"Intrauterine Pregnancy Indefinitely Prolonged," N. Stone Scott. The writer described a case in which a thirty-two year old woman had not menstruated for fourteen months. At nine months the usual signs of pregnancy began to die down. At fourteen months her appendix was

removed for chronic inflammation, and at the same time the uterus was dilated, and a foetus of about five months was removed. She had had an attack of grippe when five months pregnant, and considerable abdominal pain, so that doubtless death of the foetus occurred at this time.

"Acute Hemorrhagic Encephalitis," C. F. Hoover.

"A Report of Some Cases of Syphilis of the Liver," J. P. Sawyer. Dr. Sawyer was unable to be present.

The forty-ninth regular meeting of the Lake County Medical Society was held jointly with the corps of the nurses of Lake County and Painesville Hospital, at Parmly Hotel, Painesville, April 6, 1908.

John H. Lowman, of Cleveland, gave a resume of interesting facts concerning Cleveland hospitals and discussed the relation that should exist between hospital authorities and nurses and physicians on the staff, with special reference to the needs of the Painesville hospital. He advocated the employment of a trained nurse, whose duty would be to occasionally visit and advise with patients recently discharged from hospital, until such time as convalescence should be fully completed. This manifestation of further interest by the hospital directors would conduce to greater popularity and efficiency of service.

The Erie County Medical Society met at the Court House, February 26.

F. E. Bunts, of Cleveland, responded to an invitation to address the society on "Surgery of the Brain." The lecture was illustrated by a series of particularly fine charts of the topography of the brain, and the flaps necessary to uncover certain parts of the cortex. The overlooked function of the emissary veins in conveying infection to brain sinuses, as well as the danger resulting from otitis media was dwelt upon. Sinus thrombosis, brain abscesses, concussion and compression were some of the points elaborated. The various sorts of flaps and the operative technique were also described. It was a very instructive lecture, and the society extended to Dr. Bunts a vote of thanks for his efforts. A. F. Cook led the discussion.

The society is considering the establishment of a medical department in the Carnegie Library for the benefit of the profession.

The Erie County Medical Society met at the Court House in Sandusky on March 26, and had a very pleasant meeting. The society indorsed

the request of the Buffalo society for an inspection of the water and food supply of the passenger steamers of the Great Lakes. Some further details of the medical library question were considered, and a report is expected at the next meeting. A paper upon "Dietetics in Rheumatism and Gout," was read by S. Gorsuch, of Castalia. Owing to imperfect knowledge of the etiology of rheumatism the digestive organs should be relieved of disposing of food difficult of assimilation. A bland fluid diet, usually of milk, is best, though oatmeal gruel, vegetable broths, weak lemonade, mineral waters can be used also. After convalescence is established a return to a solid and more liberal diet is advised, such as eggs, oysters, fish, broiled chicken, etc. In the chronic form this diet should be maintained. In gout the dietetic treatment is the most important factor; as Osler has said, "Gout is evidence of an over-fed, over-worked, and consequently clogged machine." In acute attacks a diet of gruels of barley, oat meal, cracked wheat, old bread, with an abundance of alkaline waters is best. Later on give green vegetables, fruit, lean meat, fish, baked potatoes. In chronic gout the patient must be considered very often more than the disease. Ortner advises all vegetables and fruits except grapes and peaches, onions, radishes and garlic; all meats except game and sausage. He advises the use of butter, cream, bacon, olive oil, eggs, fat cheese. A gouty person should eat sparingly, take plenty of time, have regular hours, and quantity is of more importance than quality with many.

H. A. Greenwald read a paper upon "Therapeutic Action of the Salicylates." The mere mention of salicylates calls rheumatism to mind. While not specific, they hold a prominent place in the list of efficient drugs. It very often compromises with acute articular rheumatism in an encouraging way by cooling its ardor and rendering it more submissive. This tranquilizing effect of the salicylates preserves the tissue resistance against further invasion of the disease. Sodium salicylate is usually given as it is less irritating to the stomach. If this is withdrawn too soon, the disease will break out again and need a fresh car load of the salicylates to subdue it. As the attack becomes more chronic the efficiency of the salicylates lessens proportionately. Very little benefit is derived from them in the other forms of rheumatism. The external application of the salicylates is useful in conjunction with its internal administration. In the form of an ointment it can be applied locally to joints. The effect on the hearing is disastrous if there is otitis media. Do not give in nephritis

nor in meningeal inflammation. The discussion brought out the use of salicylates in gall stone disease, where it reduces the inflammatory condition, possibly by its antiseptic action. The irritability of the stomach caused by the salicylates is relieved by minute doses of morphine. The action of the wine colchicum with salicylic acid was brought out, as was also the use of tincture of cimicifuga.

SIXTH DISTRICT

The Summit County Medical Society held its regular monthly meeting March 3. The following interesting program was carried out: "Acute Urethritis, Complications and Treatment," M. L. Hunt. Dr. Hunt said in part: The terms urethritis and gonorrhoea were discussed as to their meaning and etiology. Not all discharges from the urethra are gonorrheic, and in some that undoubtedly had their origin from gonorrhoea, it is impossible to find the gonococcus. The importance of this from a forensic standpoint was made clear. The anatomy of the male genital and urinary tracts was carefully reviewed, both the anatomic and the pathologic. The varieties of acute urethritis were outlined as follows: 1. Simple—a, bacteric; b, toxic; c, chemic; d, traumatic. 2. Specific—a, gonococcic; b, chancroid; c, syphilitic. The predisposing and exciting causes were discussed at length; the water-closet theory of the origin of gonorrhoea especially receiving due consideration with its importance from a medico-legal standpoint. The pathology was dwelt upon at considerable length. The theory of aspiration due to suction caused by the alternate contraction and relaxation of the perineal muscles during the sexual orgasm was elaborated. Symptomatology was only briefly considered, the essayist believing that all agreed with Ricord, who said, "Anybody can tell when a gonorrhoea begins, but God alone knows when it will end." The more frequent complications were merely mentioned. The dangers of complications being dependent upon the severity of the inflammation and the degree and frequency to which the urethra is mechanically disturbed. Prostatitis was considered as an extension rather than a complication of gonorrhoea. Gonorrhoeal rheumatism, so-called, received considerable attention. Treatment was summed up as consisting of rest, physical, cleanliness, with attention to elimination and diet, diuretics and urinary antiseptics. The essayist brought out very forcibly the fallacy of using injection during the acute stage and deprecated their use.

"Chronic Urethritis, Complication and Treatment," E. S. Underwood.

"Diseases of the Prostate and Their Treatment," R. H. McKay. Dr. McKay said in part that tuberculosis of this gland is a disease of adolescence, not of childhood or old age. Marked susceptibility which is increased by chronic gonorrhoea, invariably secondary. Periphery of gland most often affected. Foci may coalesce to form cold abscess, which may be absorbed, or rupture internally into bladder, urethra or rectum. Gland is considerably enlarged, surface being uneven with hard and soft portions. Onset is insidious and may remain latent. Urination is frequent with burning toward end of act, constant feeling of pressure in perineum and around anus, aggravated by activity, sitting posture and defecation. Hematuria at close of micturition. Urethral discharge follows formation of fistulae. Cystoscope or sound no aid to diagnosis. As prophylactic measure chronic gonorrhoea should be cured as soon as possible. Ordinary symptomatic and tubercular abscess treatment required. If early diagnosis be made radical removal is indicated. Malignant tumors are primarily, only secondary by contiguous involvement. Vesical malignancy rarely involves prostate scirrhus carcinoma is of slow growth and do not attain great size. Medullary involves whole gland and is of rapid growth. Sudden retention often occurs in infantile sarcoma. Symptoms are due to obstruction and pressure on sacral and lumbar plexus, except actual incontinence on involvement of sphincter. Urine is clear until bladder becomes involved. Profuse hemorrhages are unusual and stop spontaneously. Treatment is limited to opiates, unless seen early when radical removal may offer some hope. Hypertrophy and benign neoplasms are known not to result from gonorrhoea or venery. Hypertrophy is not a disease until it produces signs or symptoms, which are due to mechanical obstruction. It should be differentiated from malignancy, tuberculosis, solid tumors of the bladder, and the diagnosis of kidney trouble is often made. Prognosis good. The perineal operation offers the best results, mortality given as low as 2.97 by Young. Shock is seldom severe. Medical treatment consists of urinary antiseptics, and when retention occurs, the catheter must be resorted to. Permanent catheterization preferable to repeated. Bottinis' operation of selection results are not as good as perineal. In quoting Young he says, "Prostatectomy is no longer to be considered an operation of necessity as a last resort. The fact that it can be performed with practically no

danger and with perfect functional results should lead to its earlier adoption, not only in hypertrophy, but of severe chronic prostatitis and cancer of prostate.

The postponed meeting of the Ashland County Medical Society was held Tuesday, April 7, at Ashland with a good attendance. F. V. Dotterweich read a paper on "Lobar Pneumonia." Ray C. Ash discussed the history, pathology, etiology and symptomology, and W. F. Emery the complications, sequelæ and treatment. General discussion by A. L. Sherrick, W. M. McClellan and closed by F. V. Dotterweich. Jacob Fridline gave a paper on "Acute Purulent Pleuritis," discussed by Geo. P. Reibel. General discussion, O. J. Powell, Sherrick, McClellan, Scott, Dotterweich and Fridline. A resolution was adopted and forwarded to the representative from Ashland county requesting him to urge the passage of Senate Bill 359 as it was originally presented in the senate, viz., to prohibit the feeding of distillery slops to dairy cattle. The next meeting will be held at Loudonville, May 5.

SEVENTH DISTRICT

The one hundred and sixty-fourth regular monthly meeting of the Muskingum County Medical Society was held April 8. W. F. Sealover read a paper on "Acute Articular Rheumatism," giving a history of the recognition of the disease and its separation from other forms of disease of characterized painful joints and muscles. He upheld the view that rheumatism is an acute infectious disease. The classical symptoms and treatment were outlined. The paper elicited favorable comment.

R. D. Sykes' paper on "Electro Therapeutics" was more after the order of a laboratory lecture. He demonstrated the necessity of a thorough knowledge of elementary physics to the physician who may expect to be a successful electro therapist. His demonstration that medicinal substances are not always carried in the same direction as that of the electric current was instructive. It was the consensus of opinion of those who discussed the paper that at some time in the near future a meeting should be devoted entirely to the question of electro therapeutics.

Chas. H. Higgins reported a case of fracture of the skull, and exhibited the calvarium showing a stellate fracture of the internal table beneath the point of impact and a complete fracture of the opposite side extending from the median line on the top of the skull in a sigmoid direction to the root of the zygomatic process. The victim had been rendered unconscious by the

blow, inflicted by a fellow employe, throwing a tailor's goose stand a distance of four to six feet, but in a few minutes recovered consciousness and walked to his home about a mile distant. He soon after became unconscious, but his paralysis was not sufficient to give the physician data for justifying him in trephining. He died sixteen hours after receiving the injury and the post-mortem examination revealed a blood clot weighing four ounces beneath the complete fracture, on the opposite side from that of the external point of violence and caused rupture of the middle meningeal artery.

Dr. Higgins also exhibit photographs of patient with smallpox in his care. This is the only case of smallpox at present in Zanesville, but the fact that the fellow conducts a pool room and was working there until the disease reached the vesicular stage will probably cause several cases to develop soon.

The Monroe County Medical Society met March 26. F. M. Murray read a very interesting paper on "Pneumonia," which was discussed by Drs. Ivay, Stewart, Norris, Huth, Lapp, Parry and Fulton. The meeting adjourned to meet May 14, at which time the annual banquet will be held.

The April meeting of the Jefferson County Medical Society was held in Steubenville on the 14th inst. "Indications for the Use of the Obstetrical Forceps" was the subject of a paper read by W. H. Wood. Russell H. Boggs, Pittsburg, Pa., was present and read a paper on "Some of the Practical Uses of the Roentgen Rays." Dr. Boggs demonstrated his paper by an exhibition of a number of radiographs and photographs, which was both interesting and instructive. The society unanimously passed a resolution requesting the local papers to refrain from using the name of the attending physician in connection with reports of accident and other cases.

EIGHTH DISTRICT

The regular monthly meeting of the Muskingum County Medical Society was held March 11. A paper entitled, "Should the Doctor Dispense His Own Medicine," was read by J. R. Lyon, which brought out considerable discussion. It was apparent that the dispensing of drugs is not looked upon favorably by the doctors of Zanesville. Few of the prominent physicians dispense and the most valid arguments against dispensing were that it cheapens the doctor, lowers his dignity, consumes his time, does not prevent substitution if he has not exactly what he desires upon his shelves, and the wholesale druggists are

no more honest than the retailers, and that the refilling evil is an easy matter to overcome if the physicians in their society would take some action against it. The arguments for dispensing were that it is less expensive for the patient, additionally profitable to the doctor, the doctor gets the benefit when a prescription is refilled, convenience to the patient, especially in emergencies, obviates counter prescribing by druggists, secures pure drugs and prevents substitution.

T. H. Infield read a very interesting paper on "Gastric Neuroses." The matter of the proper diagnosis of gastric disorders were dwelt upon, and the importance of analysis of the gastric contents and the differentiation between extrinsic and intrinsic gastric disturbances was fully discussed. Some took issue with the doctor's conclusion that all cases should be submitted to gastric analysis, holding that it was impractical and that, while strictly scientific results were not flattering even when therapeutic indications were religiously observed.

The Board of Censors reported on matters referred to them at the January meeting, especially regarding the construction of the Article of the By-Laws of the society referring to the length of time a member could be in arrears for dues before being suspended. The secretary had recently suspended a prominent member and ex-president of the Ohio State Medical Association, who was entitled to be called a life member, for being in arrears in his dues, and had refused to accept his dues when tendered fifteen months after the date for which he had receipts. As the by-laws stated that no member could be suspended for non-payment of dues until he was in arrears two years, the Board of Censors declared that the doctor was not in arrears the required length of time and recommended that his dues be accepted and he be declared in good standing. The report was adopted by a large majority.

NINTH DISTRICT

The Lawrence County Medical Society met in regular session March 26, and elected the following officers: President, Lester Keller; Vice President, J. S. Wiseman; Secretary-Treasurer, H. J. Brown, Board of Censors, W. S. Eakman, Dan Gray and O. U. O'Neill. The following program was rendered: "Treatment of Pneumonia," Lester Keller; "Hemoptysis," J. S. Wiseman; "Pleurisy Plaster," O. U. O'Neill. The meeting was well attended.

The Gallia County Medical Society was invited to meet in conjunction with the Association of Assistant Physicians of the Ohio State Hos-

pitals, which held its eleventh semi-annual meeting in the laboratory of the Ohio Hospital for Epileptics in Gallipolis, April 1 and 2. A representative number of active members was present. The guests and associate members present included Brooks F. Beebe, Cincinnati; G. T. Harding, and Ernest Scott, Columbus; Ralph W. Holmes and Henry Brown, Chillicothe. William H. Pritchard, Superintendent of Hospital, opened the meeting with a cordial welcome to the Association.

E. E. Gaver, of Columbus, gave the President's annual address. Subject, "Procreation in Its Relation to Insanity and Its Allied Conditions, Together with Some Suggestions of Remedies." Discussion opened by S. P. Fetter, followed by Drs. West, Beebe, Bradley, Harding, Tappan, Scott, Pritchard, and Morrison. The paper aroused an enthusiastic discussion, dwelling at length upon the problems of heredity. The appalling increase in insanity, degeneracy, and criminality, especially as regards the direct influence of heredity in this increase, brings us as assistant physicians or as medical men primarily interested in mental and nervous diseases, face to face with a duty which is urgent and imperative. We must educate the people along these lines, must equip them with the details and facts showing clearly the immediate dangers of heredity, particularly regarding alcoholism, degenerates or defectives, the insane, etc., to the end that among other things the matter of marriage and procreation and colonization of the same may be more under legislative control.

Howard Brundage, Chairman of the Legislative Committee, gave a report of forty-five bills pertaining to medical affairs in the State which had been presented to the Ohio Legislature during the present session. Only about two of these bills have passed. The others are in the hands of committees.

H. R. Berry, Assistant Physician at the Ohio Institution for Feeble-Minded Youths, and Corliss Keller of Longview Hospital, were elected to active membership in the Association.

M. L. Austin of Gallipolis presented four cases of disseminated sclerosis, all in the same family, and a cousin of the same family suffering from stammering and epilepsy.

S. P. Fetter, Gallipolis, presented a case of senile progressive chorea.

Milo Wilson, Gallipolis, presented a case of disseminated sclerosis, also a case with hysterical contracture of right arm and right side of neck. Adjournment until following morning at 8:30.

Paper, "Suicide from Passion," E. C. Unckrich,

Toledo. Discussion opened by Drs. E. B. Morrison, Tappan, Harding and Gaver.

"Management and Prognosis of Alcoholic and Drug Cases." P. W. Tappan, Dayton. Discussion by Drs. Latshaw, Unckrich, Fetter, West, Morrison and Gaver.

Paper, "The Problem of Senile Dementia in the State Hospitals." Rose E. Timms, Toledo. Discussion opened by Mary L. Austin, followed by Drs. Brundage, Bradley, Tappan and Harding.

S. P. Fetter introduced a resolution to the Association, which after thorough discussion, was readily adopted. The resolution embodies the general desire of the Association to become more closely affiliated with the State Medical Society, and in the event the State organization creates a Section of Mental and Nervous Diseases the members of the Association of Assistant Physicians seek to be actively identified therewith.

The Treasurer, M. L. Austin, made report. The nominating committee made its report and the following officers were elected for ensuing year: President, E. B. Morrison, Gallipolis; Vice President, K. S. West, Cleveland; Secretary, S. P. Fetter, Gallipolis; Treasurer, C. C. Kirk, Toledo.

A vote of thanks was tendered Dr. Pritchard and the medical staff of the hospital for the many courtesies extended during the meeting.

TENTH DISTRICT

The Columbus Academy of Medicine held its regular meeting March 23. The program was as follows: "Medical Inspection and Examination of School Children," Andrew Timberman. "Acute Infectious Diseases in the Public Schools," Dickson L. Moore. "Relation of the Boards of Health to Medical Inspection of Public School Children," C. O. Probst. "Financial Features of Medical Inspection," W. O. Thompson, President of the Ohio State University. "The Legal Phase of Medical Inspection," J. L. Davis, LL. D.

Dr. Timberman considered the subject in a general way. He gave statistics showing the results, both in cities where the work was done gratis by physicians, and by paid inspectors, reflecting in a conclusive manner the value of such action. Three points were considered of primary importance, viz., the discovery of communicable diseases and the protection of other children from infection; the discovery of physical defects which retard the development of the child which could be obviated by the application of proper remedies, and the institution of proper sanitary conditions for the schools.

Dr. Probst said that it would be more advantageous to have the inspectors under the author-

ity of the local board of health. He contended that by having as inspector a deputy health officer, he could follow the child to its home and see that proper remedies were supplied and the child placed in good physical condition.

Dr. Thompson declared that the compulsory school law made the inspection of school children a necessity, as a law enforcing children to go to school and then leaving them without protection was a condition that should not exist. He thought that as a practical matter Columbus could undertake the medical inspection of school children, but that its value would depend entirely upon its thoroughness. He suggested that a start should be made, even in a modest way. It should be one that would eventually be complete in detail and system. He thought that to go into it at all it must be with the realization that the issue could not be met half way, and that it would be better to eliminate the idea of inspecting school children unless it could be thorough.

J. L. Davies considered the legal phase, and presented the obstacles that made it impossible to carry out a systematic inspection of school children without special legislative enactment, unless the work was gratuitously performed by physicians.

The Columbus Academy of Medicine celebrated its sixteenth anniversary with a social smoker on the evening of April 4. The Academy was organized April 4, 1892.

At the regular meeting April 6, the following program was carried out: "Diagnosis and Pathology of Lobar Pneumonia," C. M. McGavran. "Treatment of Lobar Pneumonia," A. C. Wolfe. "Diagnosis and Treatment of Broncho-Pneumonia," L. M. Lisle. The papers were discussed by Drs. Euans, Warner, Thomas, Rankin, Hatton, Goodman, C. F. Gilliam, Shook, Harding, Baldwin and McClure.

S. J. Goodman presented the photograph of a patient, aged twenty-two, upon whom he had performed a Cesarean section two weeks ago. The patient had had an attack of scarlet fever, which was followed by "rheumatism" when she was twelve years old. The deformity was that of a marked lordosis; the thighs flexed onto the abdomen, and the legs on the thighs. The hips and pelvis were so firmly ankylosed that the legs could with difficulty be separated sufficiently to catheterize the patient. It was impossible to make a vaginal examination. The antero-posterior diameter was six and one-half inches. The patient had been in labor but a few hours when she was removed to the Grant Hospital. On in-

cising the uterus, the head was found so firmly impacted (face presentation) that it was necessary to manipulate the lower segment of the uterus in order to dislodge it. The mother and baby left the hospital three weeks after the operation.

Dr. Barnhill presented two sarcomata, recently removed, and gave the later results of an operation in another case.

Specimen I—A sarcoma, weight five pounds and a half, removed from the anterior and upper aspect of the thigh of a young woman twenty-eight years of age. It interfered with walking by its weight and by striking against the other limb. The interesting feature of the case was its rapid development. It was a recurrent neoplasm, in the same region from which a similar growth had been removed three years before. There had been no sign of recurrence for about two years and a half after previous operation. The patient becoming pregnant, the growth began to develop rapidly, attaining its present size in five months. A miscarriage occurred in the fifth month. Three weeks later the sarcoma was removed. The patient made a smooth recovery, the wound healing very promptly. It is now four weeks since the operation; the tissues are soft, normal in appearance, and there is no pain, the woman having perfect use of the limb.

Specimen II—A sarcoma of the parotid gland which had become painful and interfered with movements of the head and neck, and to some extent with the respiration, from pressure upon the structures of the neck. For its complete removal it was necessary to ligate the external carotid and sacrifice the cervico facial branch of the seventh nerve. Other important nerves and vessels were not injured in the operation. The structure was very vascular. Patient is doing well.

Case I—The latter results of an operation for sarcoma, specimen exhibited at a previous meeting; a sarcoma weighing almost five pounds, removed from the gluteal mass of a young woman thirty-two years of age, the growth seemingly having its origin in the sacrosclatic ligaments. Previous to the operation the woman could not sit down or do any stooping work, and besides suffered considerably from the pain and had grown weak from repeated hemorrhages. After the first operation there was a small portion of the incision which refused to heal. Two subsequent operations were made, in the second one of which considerable zone of tissue around site of the sarcoma was removed. The wound then healed kindly. In the hope of destroying any sarcomatous cells that might have remained and

of thus preventing recurrence the X-ray treatment was used, Dr. Bowen applying it for about three weeks, almost daily, with the result of securing stronger union and rendering the cicatrix soft and pliable. All redness and tenderness have disappeared and the patient is able to resume her ordinary household duties.

NEWS NOTES

MEETING OF THE ASSOCIATION OF AMERICAN TEACHERS OF THE DISEASES OF CHILDREN.

The Association of American Teachers of the Diseases of Children will hold its annual meeting in Chicago at the Great Northern Hotel, corner of Jackson Boulevard and Dearborn, on June 1. Requirements for membership in this Association are somewhat unique. To be eligible one must be a regular physician resident in the United States, Canada or Mexico, who is in good professional standing and membership in his county or local medical society and actively engaged as professor or associate professor or clinical professor of pediatrics, or as adjunct to such a chair, or who holds the position of lecturer on this branch or an equivalent position in a recognized medical college, or who is a member of a properly organized hospital or dispensary staff actively engaged in the treatment of children. All such are invited to join the Association; and all physicians and surgeons interested in children are invited to attend the meeting. Its objects are the study, the teaching and the practice of pediatrics. The officers of the Association are as follows: President, Samuel W. Kelley, M. D., Professor of Diseases of Children in Cleveland College of Physicians and Surgeons, Medical Department of Ohio Wesleyan University; Vice President, Chas. Douglass, M. D., Professor of Diseases of Children in Detroit College of Medicine; Secretary, John C. Cook, D. D., Professor of Diseases of Children in Post-Graduate Medical School and Hospital of Chicago (deceased); Secretary pro tem, Robert A. Black, M. D., Chicago; Treasurer, George G. Cattermole, M. D., Professor of Diseases of Children in Colorado School of Medicine; Senators W. C. Hollopeter, M. D., Professor of Diseases of Children in Medico-Chirurgical College of Philadelphia; H. M. McClanahan, M. D., Professor of Diseases of Children, Medical Department of the University of Nebraska, Omaha; F. R. Gilbert, M. D., Professor of Diseases of Children, Kentucky Medical College, Louisville, Kentucky.

The program for the Chicago meeting is not completed, but in part it is here presented: Ad-

dress of Welcome, Arthur D. Bevan, M. D., Professor of Surgery, Medical Department University of Chicago. Chairman Council on Education A. M. A. Address of the President, Samuel W. Kelley, M. D., Professor Dis. of Children, Cleveland College of Physicians and Surgeons, Med. Dept. Ohio Wesleyan University, Cleveland, Ohio. "The Teaching of Pediatrics as Seen by an Inspector of Medical Colleges," Frederick C. Zapffe, M. D., Secy. American Medical College Ass'n, Chicago, Ill. "The Fallacy of Attempting to Teach Pediatrics in the Chair of Practice," John A. Witherspoon, M. D., Prof. Practice of Medicine, Vanderbilt University, Nashville, Tenn. "The Teaching of Pediatrics in the European Schools," H. E. McClanahan, M. D., Prof. of Pediatrics, Univ. of Medicine, Omaha, Neb. "The Teaching of Pediatrics in The Medico-Chirurgical College of Philadelphia," W. C. Hollopeter, M. D., Prof. Pediatrics Medico-Chirurgical College, Philadelphia, Pa. "The Doctrine of Difficult Detention," Theodore J. Elterich, M. D., Diseases of Children, Western Univ. of Penna., Med. Department, Pittsburg, Pa. "Anatomical Peculiarities of Infants and Children," Richard B. Gilbert, M. D., Prof. Diseases of Children, Louisville Univ., Louisville, Ky. "Uncinariasis in the Southern States," J. Ross Snyder, M. D., Birmingham, Ala. Paper, Wm. W. Butterworth, M. D., Associate Prof. Dis. of Children, Tulane Univ., New Orleans. "Some Points on Infants' Clothing," Alfred C. Cotton, M. D., Prof. Diseases of Children, Rush Med. College, Chicago. Paper, Robert A. Black, M. D., Chicago, Ill. Paper, Wm. J. Butler, M. D., Chicago, Ill. Paper, J. W. Van Derslice, M. D., Chicago, Ill.

I am pleased to announce that I have finally fully recovered from my accident and protracted illness and have resumed my professional and sanatorium work at the Dr. C. E. Sawyer Sanatorium, where I will be very glad indeed to meet my professional friends. Respectfully yours, C. E. Sawyer, M. D.

The Lancet Clinic Publishing Company has been recently incorporated at Columbus, and is conducting the destinies of the Cincinnati Lancet-Clinic. The entente cordiale among medical journals in Cincinnati is not surpassed by that of any city. The Lancet-Clinic has during the past year embraced the Diagnostician and the International Journal of Therapy and is on the most charming relations with the other two medical journals in the city. The Lancet-Clinic is putting in new and improved machinery, has improved

its type and paper and will soon enlarge and is renewing its youth generally.

The Lakeside Hospital Medical Society held its regular meeting in the library of the house staff quarters on Wednesday evening, February 26.

Program.—"A Case of Exstrophy of the Bladder," B. H. Cox; "Two Cases of Cholecystitis with Symptoms of Intestinal Obstruction," J. R. Beiter; "(a) A Case of Bronchiectasis, (b) A Case of Alcoholic Neuritis with Involvement of the Meninges," C. L. Cummer; "A Case of Pyloric Stenosis," B. Lisenbrey; "(a) A Case of Gout, (b) An Interesting Case of Chronic Plumbism," C. Stone; "A Case (with specimen) of Papillary Adenocarcinoma of Ovary," R. H. Sunkle; "Four Cases of Congenital Bone Anomalies," H. O. Feiss; "Pathological Specimens," H. C. Russ.

The Lakeside Hospital Medical Society held its regular meeting in the hospital library at 8 p. m., Wednesday, March 25, 1908.

Program.—"A Case of Purpura," F. W. Vincent; "A Case of So-Called Amaurotic Family Idiocy," W. E. Bruner, C. F. Hoover; "A Case of Pernicious Anemia with Spinal Cord Symptoms," C. L. Cummer; "A Case of Bone Metastasis in Carcinoma," C. L. Cummer; "A Case of Suppurating Perforating Ulcer of Foot Occurring in Diabetes," J. R. Beiter; "A Case of Carcinoma of Larynx," F. W. Vincent; "A Case of Gastric Carcinoma with Gastroenterostomy," I. H. Fuhs; "Michel's Clamps for Closing Skin Incisions," Hunter Robb; "Resuscitation of a Patient after Eight Minutes of Cessation of Heart Beat," H. G. Sloan; "Report of a Case of Paroxysmal Hemoglobinuria," C. W. Stone; "Report of a Case of Sudden Death in Addison's Disease," G. H. Lewis; "Report of a Case of Congenital Dislocation of Hip with Muscular Atrophy," C. F. Hoover, H. O. Feiss.

The tenth annual meeting of the American Proctologic Society will be held in Chicago June 1 and 2 at the Palmer House.

Preliminary Program.—"The Treatment of Choice of Stricture of the Rectum," Wm. M. Beach, Pittsburg, Pa. "Amebiasis: Its Symptomatology, Diagnosis, Sequelæ and the Use of Formalin and Copper Phenol Sulphonate in its Treatment," John L. Jelks, Memphis, Tenn. (a) Physiology of Defecation; (b) Report of a case of the extraction of a plate with false teeth from the sigmoid, Samuel T. Earle, Baltimore, Md. "The Treatment of Chronic Constipation, Including a Consideration of Obstipation," Samuel G. Gant, New York City, N. Y. "Dysentery," Jos.

M. Matthews, Louisville, Ky. "Galvanic and Faradic Electricity in the Treatment of Hemorrhoids, Fissures, Prolapse, Ulceration and Non-Malignant Stricture of the Rectum, Wm. L. Dickinson, Saginaw, Mich. "The Choice of an Anesthetic in Anal Surgery," Jerome M. Lynch, New York City, N. Y. "Chronic Multiple Punctate Ulcers of the Rectum," J. A. MacMillan, Detroit, Mich. "Benign Tumors of the Rectum," T. C. Hill, Boston, Mass. "Profound Peri-Rectal Abscess," Collier F. Martin, Philadelphia, Pa. "Surgery of Special Diseases of the Rectum," George B. Evans, Dayton, Ohio. (a) Report of cases: Profound secondary anemia from internal hemorrhoids (six cases); Gangrene of the rectum from self-treatment of internal hemorrhoids (one case); (b) Presentation of new examining speculum, Dwight H. Murray, Syracuse, N. Y. "Spontaneous Intestinal Anastomosis," James P. Tuttle, New York City, N. Y. "Mesosigmoidopexy, with Report of Two Cases," Louis J. Hirschman, Detroit, Mich. "Carcinoma of the Rectum; Comparative Results of Operative Procedures," J. Rawson Pennington, Chicago, Ill. "Primary Melanotic Sarcoma of the Rectum with the Report of Two Cases," Louis J. Krouse, Cincinnati, Ohio. "Some Colonic and Sigmoidal Conditions," Edwin A. Hamilton, Columbus, Ohio. "Rectal Hemorrhage Due to Capillary Varicosity," B. Merrill Ricketts, Cincinnati, Ohio. "Valvotomist and Valvotomy as a Fad and Fallacy," Leon Straus, St. Louis, Mo. "Rectal Diseases,—a Report of Three Cases:—Condylomata, Lipoma, and Dermoid Cyst," Lewis H. Adler, Jr., Philadelphia, Pa.

The fourth annual conference of the Council on Medical Education of the American Medical Association was held April 13, 1908, at Auditorium, Chicago. Program was as follows:

10.00 A. M.—MORNING SESSION.

Address of the chairman, Arthur Dean Bevan, Chicago. Report of the secretary, N. P. Colwell, Chicago. Report of committee on Preliminary education, Chairman John H. Long, professor of chemistry, Northwestern University Medical School, Chicago; Charles R. Bardeen, dean, College of Medicine, University of Wisconsin, Madison; George A. Piersol, professor of anatomy, University of Pennsylvania, Philadelphia; discussion opened by Charles S. Sheldon, representing the American Academy of Medicine, Madison, Wis. Report of committee on what should constitute a medical college in good standing, Chairman Victor C. Vaughan, dean, College of Medicine and Surgery, University of Michigan, Ann Arbor; Wm. J. Means, chairman judicial

council, Association of American Medical Colleges, Columbus, O.; Geo. W. Webster, president of the state board of health of Illinois, Chicago; discussion opened by James W. Holland, dean, Jefferson Medical College, Philadelphia.

1.00 P. M.—AFTERNOON SESSION.

Report of committee on the essentials of a model medical practice act, Chairman Beverly D. Harrison, secretary of the Michigan state board of registration in medicine, Detroit; F. Dudley Tait, chairman credential committee, board of medical examiners of California, San Francisco; William Warren Potter, president of the state board of medical examiners of New York; discussion opened by Alexander R. Craig, secretary of the committee on public policy and legislation of the medical society of the state of Pennsylvania, Philadelphia. Discussion: "The Character of the State Medical Licensing Examination," J. W. Bennett, secretary of the state board of medical examiners of New Jersey, Long Branch; W. T. Councilman, professor of pathology, Harvard University Medical School, Boston; F. F. Westbrook, dean, College of Medicine and Surgery, University of Minnesota, Minneapolis. Discussion: "Practical Ideas Concerning Reciprocity," A. Ravogli, president of the state board of medical examiners of Ohio, Cincinnati; S. D. VanMeter, secretary of the state board of medical examiners of Colorado, Denver.

Every member of the Council was present, and nearly a hundred others from all over the nation. President Eliot of Harvard, Professor Balifour of Edinburgh, Scotland, and Dr. Burrell, President-elect of the A. M. A., were present and gave short addresses.

The preliminary education of the medical student was a prominent topic for discussion. Dr. Eliot took part in this and reviewed the great progress that has been made. He said that fifty years ago when he began lecturing on Chemistry in Harvard Medical School, no questions were asked the matriculant, and one difficulty they met in establishing written examinations was the inability of many of the students to put their answers in writing.

Rapid progress has been made in establishing the new standard which requires a year of preliminary work in Chemistry, Biology, Physics, and Modern Language in an accredited school in addition to the high-school work. Three states have given their licensing boards power of refusing to examine applicants from institutions which do not make this requirement. Nearly

sixty of the eighty class schools have adopted it. Six of Ohio's nine schools are among these.

V. C. Vaughan, of Ann Arbor, reported for the committee on "What Should Constitute a Medical College in Good Standing." The Council personally investigated the 161 colleges of this country and graded them according to their equipment and teaching resources. Of these, 80 are entitled to be classified as in good standing. The work of the Council is in bringing about consolidations and eliminations among the weaker schools. Indiana now has but one medical school. President Eliot stated in this connection that 90% of the teaching in Harvard Medical School could be classified as laboratory instruction.

Beverly D. Harrison presented a "Model Medical Practice Act" as prepared by his committee. This model is very similar to the Ohio act.

A very lively discussion occurred in the character of the State Medical Licensing Examination. A strong plea was made for a more practical nature of these tests, that of for laboratory and clinical tests in addition to the written or oral examinations.

"Reciprocity" was ably handled by our own Dr. Ravogli and others. The general sentiment seemed to be that there should be no such thing as reciprocity, but that each board should have power to decide, after thorough investigation of the history of an applicant who had been admitted to practice before adoption of the modern requirements, whether or not he is fit to practice in their State.

AMERICAN ACADEMY OF MEDICINE—PRELIMINARY
PROGRAM FOR THE THIRTY-THIRD AN-
NUAL MEETING.

The meeting at Chicago should receive and discuss the reports of the following committees: "On the Best Means for the Medical Profession to take part in the Education of the General Public in Medical Matters through Publications, Etc.," Edward Jackson, Denver, chairman; "On Teaching Hygiene in the Public Schools," and in connection with this report of our Delegate to the Second International Congress on School Hygiene, London, 1907, Helen C. Putnam, Providence, chairman; "On Conference with Educational Institutions on Medical Education," Charles McIntire, Easton, Pa., chairman. As the proceedings of this conference are published in the last number of the Bulletin and in this, this report will be considered along with the report of the special committee appointed at the conference to formulate conclusions from the papers and discussions, John L. Heffron, Syracuse, N. Y., chair-

man; the report of the delegate to the annual conference of the Council of Education of the American Medical Association, Charles S. Sheldon, Madison, Wis.; "To Collect Data as to the Amount of Damage Done by Alcohol in Moderate Drinkers," Woods Hutchison, New York, chairman; "To Prepare a Draft of an Act to Create a State Board of Medical Examiners," Charles McIntire, Easton, Pa., chairman. The symposium for the year is on "The Place of Woman in the Modern Business World, as Affecting Home Life, through Marital Relation, Health, Morality and the Future of the Race."

Under this the following papers are promised: 1. "As Affecting the Home-Life and the Marital Relations," A. Stewart Lobinger, Los Angeles; 2. "As Affecting Health," L. Duncan Bulkley, New York; 3. To be announced, Otto Juettner, Cincinnati; 4. To be announced, Norman Bridge, Los Angeles; 5. To be announced, Edward B. Heckel, Pittsburg; 6. "The Invasion of Masculine Pursuits by Women—A Statistic Study," A. L. Benedict, Buffalo; 7. "The Influence of Modern Methods of Education upon Women, their Home-Life, Etc.," George H. Hoxie, Kansas City, Mo.

A paper on "Some Considerations of the Necessity for a Rational Curriculum for the Doctorate," by Henry Beates, Jr., of Philadelphia.

NOTES

H. G. Gibson has been elected health officer of Gloucester.

G. D. Gohn, Dayton, has been appointed jail physician.

J. H. Fisher, Malinta, sustained a fracture of the ankle, March 3.

J. H. Kinney, Wooster, was operated on February 21, for appendicitis.

The American Medico-Psychological Association meets in Cincinnati in May.

The Mansfield Emergency Hospital was opened to the public March 18.

F. T. Marr, Chillicothe, is convalescing from an operation for appendicitis.

The Cincinnati Medical Book Company has been recently incorporated in Columbus.

J. P. Gardiner has succeeded A. T. Barnum as pathologist to the Toledo State Hospital.

George K. Colville, Columbus, has resumed practice after spending several months in the west.

E. H. Porter, president of the Seneca County Medical Society, is visiting his father in California.

Captain William Vose has charge of the Post

hospital, Columbus, during the two months' leave of absence of Major Henry I. Raymond.

H. E. McDonald, Columbus, has removed to Los Angeles, Cal., where he will act as assistant chief medical examiner for the Mutual Life Insurance company.

Plans are being prepared for a new hospital at Massillon, to cost \$50,000, the expense being borne by J. F. Pocock, who will present the institution to the city.

Harry B. Harris, of No. 110 North Ludlow street, Dayton, announces the removal of his office April 1, 1908, to the Reibold Building, Suite Nos. 800, 801 and 802.

W. D. McCullom, assistant to Dr. Welch at Johns Hopkins Hospital, Baltimore, has been tendered the chair of Pathology in the University of Cincinnati and the Cincinnati Hospital.

Lloyd Jones, Columbus, arrested at the instance of the state board of pharmacy, charged with selling drugs without being a registered pharmacist, was found not guilty.

Articles of incorporation of Grant hospital, Columbus, signed by Drs. J. M. Dunham, E. W. Schueller, W. B. Carpenter, T. W. Rankin, S. J. Goodman and Fred Fletcher, were filed February 24. It is proposed to erect a six-story brick building, to cost \$150,000.

H. G. Wells, of the University of Chicago, delivered an address, March 24, in the lecture room of Physics Hall, Ohio State University, under the auspices of the Omega chapter of the Society of Sigma Xi. The subject was, "The Present Status in the Search for the Cause of Tumor Formations." An invitation was extended to the members of the Columbus Academy of Medicine.

MARRIAGES

W. S. Van Fossen, Columbus, to Miss Katherine Hobson of Fremont, April 9.

DEATHS

A. A. Crump, the oldest practitioner of Holmes county, died at his home in Millersburg, March 19, aged 88.

Katherine Burns, Women's Medical College of Pennsylvania, 1892, of Canton, died after a long illness, March 23, aged 41.

H. W. Fowler, Physio-Medical College, Cincinnati, 1856, died at his home in Cincinnati, March 3, aged 83.

O. I. Corson, ex-coroner of Muskingum county and located for the past year at Hopewell, died suddenly on the night of March 17, from organic heart disease.

J. C. Tilton, of North Baltimore, was found dead sitting in a chair, March 26, his head rest-

ing on a table with a spoon in his hand, as though in the act of taking medicine. Heart disease is the supposed cause of death.

William McQueen Testzel, Trinity College of Toronto, 1896, died at his home in Cleveland, March 18, after a short illness with cerebro-spinal fever, aged 35.

S. R. Hayes, Cincinnati College of Medicine and Surgery, 1886 a physician of Tippecanoe City, died from tetanus, March 16, aged 45.

J. G. Bigham, New York University Medical College, 1860, a veteran of the Civil War, died at the Millersburg sanitarium, March 13, aged 72.

Roy O. Totten, Cleveland University of Medicine and Surgery, 1896, a practitioner of Cleveland, fell from a window while attempting to adjust a sign and fractured his skull, March 13, and died a few minutes later, aged 39.

Clarence A. Force, a prominent physician of Attica, died in Mt. Carmel hospital in Columbus, March 24, following an operation performed several days previously. Dr. Force was afflicted with cancer of the large intestine and the operation, a most hazardous one, from the large amount of resection necessary, was performed on March 16. For a time he rallied and was apparently on the road to recovery, until on Tuesday he began to sink rapidly and passed away before his family who had been summoned could arrive at his bedside.

The deceased was aged 50 years and was born in the state of New York. He came to Attica with his parents, now both deceased, about 25 years ago where he at once entered upon the practice of his profession and where he has since resided. During his professional career of a quarter of a century Dr. Force gained a wide reputation as a surgeon and general practitioner. No man in Attica and the surrounding country was more esteemed than he and at various times he had been honored with almost every office in the municipality. He was a member of the city council several times and at the time of his death and for many years past had been a member of the village board of education. He was a man who made and kept friends and although of an unobtrusive and retiring nature, was by his unsought popularity a natural leader in all movements for the progress or good of his community. He was prominent in lodge circles, being at the time of his death a 32d degree Mason and a member of DeMolay Commandery Knights Templar as well as other bodies of the order. He was also a member of the order of Knights of Pythias and of the Seneca County Medical society.

CURRENT MEDICAL LITERATURE.

(Continued from page 297.)

other troubles. Berteling (editorial, Jour. Ind. State Med. Asso., Feb., 1908, p. 68) says:

"Whenever an epidemic of la grippe, even in light form, invades a community, physicians should be prepared to encounter the most atypical forms of bronchitis, broncho-pneumonia and lobar pneumonia, unusual manifestations of gastrointestinal disorders, an increase in the attacks of nephritis, atypical cases of rheumatism, and after the subsidence of the epidemic a harvest of empyemas and pulmonary tuberculosis, and among children hypertrophied tonsils, adenoids and mastoid disease.

"When the epidemic disease attacks children, all the usual points of vulnerability are extremely affected. The vocal cords become so edematous that membranous croup is suspected, and aural symptoms are the rule. Coryza of an extreme type is present, also an irritable cough persisting for weeks, and as sequela hypertrophied tonsils and adenoids. * * * During this past epidemic as it appeared in his community the writer has observed an unusual manifestation of gastro-intestinal disturbance, protracted nausea and vomiting, persistent diarrhea without much pain and with the prostration of cholera morbus."

[In certain localities an acute jaundice, seemingly epidemic, has been prevalent, attended with all the symptoms of la grippe.—Ed.]

TECHNIC OF PERFORMING CERTAIN CRANIAL OPERATIONS.

Cushing (Surg. Gynec. and Obs., March, 1908, p. 227) asserts that the technic of opening the skull in various locations is now so well worked out that it should be understood by every surgeon who has occasional necessity to open the skull. He shows that except in the sub-temporal and sub-occipital regions, provision should always be made to retain a bone flap to prevent subsequent hernia. He advises in certain cases lumbar puncture to relieve cerebral tension, especially when the "brain tends forcibly to protrude" when a very small opening is made through the dura, there being "no escape of fluid with resultant lowering of tension." He describes a tourniquet and a special method of scalp closure, with straight needles, which gives a bloodless field when working on the dome of the skull. This does not apply to operations low down in the temporal or occipital region. Here the vessels are controlled as they are met. A simple device is illustrated which allows free respiration and yet makes the occipital region easily accessible for operations. For the details of technic and

instruments used, which Dr. Cushing seems to have reduced to the minimum compatible with good work, those who are interested are referred to the original article. It is a pleasure to note the care with which the author has credited to their sources the many ideas adopted, a matter too often neglected by men doing original work.

MYOCARDITIS DUE TO THE TOXEMIA OF CHRONIC CHOLECYSTITIS.

Knowing that toxemias from any source, particularly a chronic suppurative one, produce nephritis and myocarditis, it is not surprising to learn that toxic myocarditis can be relieved by cholecystostomy. An interesting and valuable report on the subject is made by Bayard Holmes (editorial Surg. Gynec. and Obs., Jan., 1908, p. 76), who finds that though "not every case of chronic cholecystitis is attended by myocarditis, still it is one of the most interesting manifestations of the disease, and in a considerable number of cases has proved to be its most conspicuous and troublesome result."

"Many patients who suffer of tachycardia, dilated heart, myocarditis, give a history of long past "bilious attacks" or symptoms of present cholecystitis. Such patients present the history of gradually increasing dyspnoea; sometimes after unusual strain or angina-like attacks, and at last such severe symptoms as to require serious attention." At this stage, the pulse is rapid, 90-120, temperature varying 97-100; the complexion dusky; there has usually been loss of weight; the leucocytes are increased 10,000-18,000; the urine may show occasional "showers" of casts; indican may be present; cardiac dullness is increased two to five inches; and often there is valvular incompetency. Further the liver may be increased downward; and the gall bladder is tender, especially after angina-like attacks. The functions of the stomach are most often disturbed, there being nausea, regurgitation, or vomiting of food.

Holmes cites cases where suitable treatment for weeks failed to relieve; while draining the diseased gall-bladder (opened under local anesthesia if necessary) gave results "marvelously gratifying to the patients and almost incredible to the observer. Immediate improvement has followed in every case."

The report is doubly interesting in that one patient had a prompt return of the symptoms on the closure of the fistula which were as promptly relieved again on re-establishing drainage. Undoubtedly the gall-bladder should be considered in every obscure case of myocarditis as a possible source of the trouble.

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ORIGINAL ARTICLES

DIFFUSE SUPPURATIVE PERITONITIS, WITH REPORT OF SIX CASES FOL- LOWING APPENDICITIS WITH PERFORATION.

JAMES U. BARNHILL, M. D.,

Professor of Principles of Surgery and Clinical
Surgery, Starling-Ohio Medical College;
Surgeon, Protestant Hospital,
Columbus.

[Read before the Ohio State Medical Association,
Cedar Point, 1907.]

Notwithstanding the extended discussion given the subject within the last few years, diffuse suppurative peritonitis still presents many unsettled questions, among which there is none of greater interest and importance than that of its treatment.

The term *diffuse peritonitis* or *diffuse suppurative peritonitis* is used to designate inflammation involving a considerable portion of the peritoneum and having a tendency to spread; while that of *general peritonitis* should be applied only to cases (suppurative and septic) in which the entire peritoneal cavity is involved; the causal bacteria, the streptococcus, staphylococcus, bacillus coli, pneumococcus, and more rarely the gonococcus, all being pyogenic.

Our chief concern is to first search out the focus of infection and close perforation. In almost all cases the origin can be traced to disease of some abdominal organ. By timely treatment of appendicitis, gastric and intestinal ulcers, intestinal obstruction and other local diseases, general inflammation of the peritoneum may be prevented. Though much has been done within the last few years by early operation for removal of initial lesions, peritonitis is still all too frequent.

Every physician of experience is probably familiar with cases of fatal peritonitis in which early operation would, in all probability, have saved life. In many cases, with indications for operative relief imperative and the danger clearly pointed out, operation has been refused. This

refusal often comes primarily from the patient, sometimes from misguided friends and not infrequently from the reluctance of the family physician to recommend such procedure. The following is an illustration.

A young physician made a diagnosis of an appendiceal abscess; a consultant of larger experience confirmed the diagnosis but, as the temperature suddenly subsided and the patient was not suffering much pain, the latter advised against an operation. Another consultant agreed that there was an appendiceal abscess and advised immediate operation. Notwithstanding this the approval of the first consultant was not given, his advice for delay prevailed, and within a few days the patient died of peritonitis, doubtless due to rupture of the appendiceal abscess. In this case, as in many others, the falling temperature and subsidence of pain, which were really signals of danger, were doubtless misinterpreted by the physician who advised the delay.

Another case, occurring in the practice of one of my colleagues at the Protestant Hospital, illustrates the importance of early diagnosis and surgical intervention.

A patient who was taken with the first symptoms of appendicitis on Sunday evening was brought to the hospital; pain quite severe, slight distention, abdomen tense and painful to pressure, temperature had never been above 102; operation Wednesday at 2 o'clock, at which time the temperature was 99, pulse 136. There was a large quantity of pus in the abdomen with a pretty general involvement of the peritoneum; the low temperature doubtless being due to the sudden absorption of toxins at the onset of the peritonitis. The patient made an uninterrupted recovery.

According to the 1905 report of the Ohio State Board of Health, in cities having a population of 1,692,000, there were reported 452 deaths from peritonitis and gastritis. Estimated upon this basis there were 1175 deaths in the state from these diseases, or about 528 deaths from peritonitis; the majority of which were doubtless of the

diffuse suppurative type. Assuming a mortality of fifteen per cent. this would indicate that we had, in Ohio in 1905, about five thousand cases of peritonitis. Initial lesions—autopsies in 446 cases of acute diffuse peritonitis, conducted by Benda—show that the starting point, as near as could be determined, was appendicitis in twenty-six per cent. of the cases, disease of stomach and duodenum in thirteen per cent., lesions of all other parts of the intestine in twenty-five per cent., uterine appendages in eighteen per cent., gall bladder in two and one-half per cent., urinary bladder and kidneys in three per cent., the pancreas in one per cent., nephritis and articular rheumatism in five-tenths of one per cent., the spleen in one per cent., post-operative two per cent. and various other abdominal lesions in eight per cent.

Early operation for removal of the focus of infection is of the first importance. The operation should be performed as speedily as possible with the least possible injury to abdominal structures. Care should be taken not to destroy the thin layer of fibrinous exudate which has been thrown out on the peritoneal wall, or to break up adhesions, except to empty local abscesses. A necrotic appendix should be removed if easily accessible, otherwise this may be done later.

Irrigation should never be employed in cases of partial involvement of the peritoneal cavity as it may spread the infection. It is in the cases of universal involvement that there is difference of opinion. On the whole the tendency seems to be to get away from flushing, and the splendid results of Murphy, Mayo and others without irrigation furnish a strong argument in favor of their method. In selected cases of sepsis, however, with fetid thick pus, and possibly the presence of foreign material in the abdomen, I believe it should be employed. In such cases the objection that irrigation spreads the infection is not valid, as there is no chance for further extension; the mortality in such cases is unfortunately very high. The flushing cleanses the peritoneal surfaces, freeing them of bacteria, dead cells and toxins, diluting the latter, and washing all the bacteria and dead cells to the lowest part of the abdomen where absorption is slower, as abundantly demonstrated by Muscatello and others; besides the dilution itself will diminish the rate of absorption, protect the organism and promote phagocytosis and elimination.

The friends of flushing sometimes dispense with it and its so-called opponents sometimes use it, so we may yet get together. The latter employ it when they are satisfied that, from perforation, foreign material has escaped into the

abdomen and is intermingled with the pus. The damaged peritoneum is essentially an abscess wall, and we know that the cleansing of an ordinary abscess wall facilitates healing; the pus and dead cells of the unclean abscess wall constitute culture medium for bacterial growth. It is none the less the case here. Cleanliness is the indispensable condition of rapid healing. As in the case of saliva or other body fluid, the presence of the normal saline solution is no barrier to the healing process, but on the other hand, dissolves toxins and promotes phagocytosis. A wound in the mouth or on normal serous surfaces, bathed in fluid, will heal even faster than on the surface of the body.

On the question of drainage the profession is also divided. There are those who hold with Blake, Hotchkiss and LeBoutillier that the "peritoneal drain can be eliminated as a factor of importance in the treatment"; while others, including the writer, believe with Mayo, Murphy and Morris, that a vastly better percentage of recoveries has been secured by its proper employment. The opponents of the drainage method say it is utterly impossible to drain the general peritoneal cavity. It is true that within certain limits bacteria and their toxins, or other foreign substances, can be disposed of by absorption. These limits are secured and the peritoneum protected in the upper part of the abdomen by posture. But this very treatment throws the bacteria and debris into the lower abdomen where, fortunately for the whole organism, absorption is very slow, but where, if not removed, the bacteria multiply, and escaping encapsulation, may again light up general inflammation. By drainage we simply help nature to rid the abdomen of this imprisoned, but not conquered foe. Glass or rubber tube drainage should be employed. Gauze, as a drain, soon becomes impervious with fibrin and may tear off protecting exudate and the reparative granulations, and therefore is ineffective and objectionable for this purpose. The use of such drainage is but the application of the principle of surgical cleanliness to avert further extension of the infection. The presence of the glass or rubber tube is of itself no disadvantage. The rubber tube may be perforated or split and filled with gauze, thus securing absorption, at least for a brief time, at all points along the tube and after removal of the gauze furnishes an opening for siphoning out any accumulated pus. The drains should be placed at the most dependent parts and at the seat of the greatest inflammation.

Murphy and others have demonstrated the great advantage of saline enteroclysis. The most satis-

factory results are secured by the slow or drop-by-drop administration of a pint or more of a saline solution every two or three hours. The rate of absorption varies greatly with different patients. To some the tube is annoying, but if used at intervals it may be tolerated in almost all cases. Hypodermoclysis of normal salt solution should be carried out with the same object in view. The absorption of water thus secured strengthens the heart, increases the amount of serum and consequently dilutes the toxins, improves the function of the endothelial cells, encourages phagocytosis, facilitates elimination and stimulates repair.

The semi-recumbent or, in suitable cases, the sitting position is recommended and was uniformly carried out in the cases herewith reported. The chief advantage in thus elevating the shoulders lies in permitting the exudate to gravitate to the lower part of the pelvis where absorption is much slower than in the diaphragmatic region. Not a little advantage is also gained by thus relieving the breathing. All food, per stomach, should be withheld from the patient through the acute stage of the inflammation and the stomach should be emptied by lavage. Alimentation may also be effected by rectum. A small quantity of water may be taken to allay thirst.

Brief synopsis of six cases of well marked diffuse suppurative peritonitis following appendicitis with perforation:

I.—B., age 13, referred by Dr. McCafferty. 1. History of illness: Pain and slight distention two days before admission; slight diarrhoea and nausea. 2. Condition on admission: Marked tympany and considerable pain and tenderness over entire abdomen, most marked over right side; rigidity of muscles; appearance of great prostration; pulse 130, temperature 99. 3. Operation and after-treatment, etc.: Incision over right semilunar line; free pus, dark with fecal fluid, throughout the abdomen; appendix gangrenous and perforated; dark necrotic contiguous area on cecum; no limiting adhesion anywhere in abdomen; appendix removed; flushing with normal saline solution; cigarette and glass tube drain; saline enemata at intervals; hypodermoclysis of normal salt solution; great prostration; feeble pulse; urine scanty; patient grew weaker and died in thirty hours. Bacteria found: *Staphylococcus*, *bacillus coli*. 4. Result: Died of sepsis and urinary suppression. St. Anthony's Hospital, December 19, 1903.

II.—V., age 35, referred by Dr. Riebel. 1. Four days before admission first symptoms developed: pain; tenderness; fever; nausea; with gradual distention of abdomen. 2. Temperature

102.5, pulse 116, respiration 24; leucocyte count, 14,000; subsidence of pain; nausea more marked; no localized dullness. 3. Incision through outer border of rectus; free pus in lower abdomen; inflammation active, diffuse; appendix gangrenous, perforated, sloughed away at extremity; sponged out abscess space; no sponging or wiping of serous surfaces; drained pelvis and abscess by separate tubes; next day, temperature 100.5, gradually subsided to normal on the eleventh day. 4. Recovery. (Discharged February 2, 1904, Protestant Hospital; Dr. Dougherty, attending house surgeon.)

III.—W., age 32, referred by Dr. Wells. 1. Pain in right side for several days, though not severe until day before operation; considerable tympany; abdominal wall tense; dull aching pain. 2. Marked tympany; temperature 99, sometimes dropping below; leucocyte count, 16,000; limbs partially flexed; constipation. 3. On opening by usual incision on right side found purulent fluid, fetid; necrotic and perforated appendix, amputated; wall of an extensive abscess had broken down; pus in recto-vesical space was removed by siphon and drained; head elevated. 4. Continued suppuration on fifteenth day after operation; wound infected; tubes emptied by siphon and swab at short intervals for three days, then once a day; secondary operation, under cocaine anesthesia, to close wound; recovery complete. (Discharged May 12, 1904, Protestant Hospital; Dr. Verne A. Dodd, attending house surgeon.)

IV.—A., age 28, referred by Dr. Riebel. 1. Seventy-two hours before admission, pain and nausea, subsiding to recur next day; nausea; coated tongue; constipation. 2. Pulse 140, temperature 101.2, respiration 28; abdomen distended, rigid, no area of dullness; knees flexed in bed; no nausea; leucocyte count, 20,000; early pain most intense on right side, becoming more general. 3. Free incision in usual site; appendix large, imbedded in a mass of granulated tissue, perforated; removed; slight fibrinous exudate over portions of peritoneum; drainage by glass tubes; emptied by siphon or swab; saline enemata maintained for three days. 4. Uninterrupted recovery. (Discharged January 26, 1905, Protestant Hospital; Dr. Cooperrider, attending house surgeon.)

V.—F., age 12, referred by Dr. Howland. 1. Pain and tenderness thirty-six hours before; diagnosis made at once by Dr. Howland and patient sent to hospital. 2. Pulse 120, temperature 101.7, respiration 22; in the morning, 10 o'clock, time of operation, temperature 102, pulse 118, respiration 20; tympany over abdomen which was tense; tongue coated; rapid extension of

inflammation. 3. Operation soon after admission; gangrenous, fragile and perforated appendix; extensive inflammation; peritoneum for considerable distance covered with layer of fibrin; intestines not disturbed; drainage with glass tube; proctal transfusion. Bacteria: *Staphylococcus*, *bacillus coli*. 4. Uninterrupted recovery. (Discharged August 13, 1905, Protestant Hospital; Dr. Cooperrider, attending house surgeon.)

VI.—A., age 30, referred by Dr. Peasley. 1. Thirty-six hours before admission, pain most marked in right side but extending all over abdomen; six hours before, nausea and vomiting. 2. Temperature 100.5, pulse 92, respiration 24; leucocyte count, 14,000; patient weak; abdomen rigid, tense, tender and tympanitic. 3. Immediate operation; incision in right semilunar line; about half a pint of pus escaped from incision; appendix gangrenous and perforated, removed; lavage of abdomen and drainage of lower abdomen and stump; shoulders elevated; temperature varied between 98 and 100 for ten days when it remained normal. 4. Recovery. (Discharged January 31, 1906, Protestant Hospital; Dr. Gudenskauf, attending house surgeon.)

Of the six cases there was one death, flushing was employed in two cases, enteroclysis in three, hypodermoclysis with normal salt solution in two and drainage in all.

Conclusions: The most important single factor in prevention of peritonitis is early operation in practically all cases of appendicitis.

Conditions peculiar to each case must be taken into account in determining manner of treatment.

Food should be withheld from the stomach and gastric lavage employed if there be nausea, and usually after anesthesia to prevent possible nausea.

Early and quick operation and establishment of free tube drainage with least possible trauma. No sponging or eversion.

Irrigation only in cases of general suppurative peritonitis; i. e., in cases of involvement of practically the entire peritoneal cavity without limiting adhesions, or in cases of the presence in pus of necrotic material or foreign substances escaping from the bowel.

Saline enemata should be administered by the slow method for three or four days. Hypodermoclysis if patient be anemic and feeble.

Perfect rest should be imposed and patient's head and shoulders elevated and this should be done before as well as after operation.

DISCUSSION.

William H. Humiston, Cleveland: The term diffuse septic peritonitis, employed in this discussion, refers to an acute septic inflammation of the peritoneum, more or less general in extent, and arising from perforation or extravasation of septic material from the hollow viscera, stomach, intestines, gall bladder, or tube and ovary. Perforation of the gall bladder, stomach or duodenum is followed much more rapidly by symptoms of a spreading peritonitis than a perforation of equal size taking place in the pelvic portion of the digestive tract, for the reason that gravity rapidly disseminates the infection from top to bottom of the peritoneal cavity. The low perforations act much more slowly, as the spread of the infection must be through peristalsis and absorption.

The gravity of a case of septic peritonitis depends largely upon the nature of the infection. *Streptococcus* and *colon bacillus* are much more virulent than the *staphylococcus*. It has been demonstrated by Dr. Harvey Cushing that the *gonococcus* of Neisser does give rise to general acute peritonitis. He refers to two cases in the Johns Hopkins Hospital Bulletin of May, 1899.

By advances in surgical technique and the after treatment of diffuse septic peritonitis, the mortality has been reduced from 90 to 10 per cent. Murphy, of Chicago, reports a series of thirty-six cases with but one death, less than three per cent. mortality. This fatal case arose from perforation of the appendix and died six days after operation from a double pneumonia. The peritonitis had entirely subsided, the abdomen had become flat, the bowels were moving regularly, and as a peritonitis is cured, but he still charged it as a death following operation for diffuse peritonitis.

How may we hope to keep the mortality of this dreadful disease below ten per cent.?

First. By an immediate, rapid operation.

Second. By providing free, continuous drainage.

Third. By supporting strength of the patient throughout the operation and for days following.

Fourth. By placing and keeping the patient in the Fowler's position.

The diagnosis of septic peritonitis is not usually difficult, as it arises commonly in cases of appendicitis, gall bladder inflammation, typhoid perforation, duodenal ulceration, leaky pus tubes, ovarian abscess, dermoid cysts and twisted pedicles of suppurating ovarian cysts.

Immediate operation precludes any special preparation of the patient, as the delay required to permit this is valuable time lost. Thorough lavage of the stomach is essential before beginning the anesthetic; and before removing the tube, my usual custom is to introduce into the stomach about one ounce of sulphate of magnesium in solution, which will produce a bowel movement within eighteen hours. This may be injected into the jejunum at close of operation and before tying the abdominal sutures, closing the small trochar needle puncture with Lembert suture.

I prefer the drop method of giving ether to any other form of anesthesia, and as soon as the

patient is unconscious, to begin the sub-mammary injection of normal saline solution, and continue it during operation and until one litre has been introduced under each breast.

A free incision should be made in the median line, and if the infection has arisen from the upper abdominal viscera, the incision should be made above the umbilicus.

Find the source of the infection, and make thorough repair of the diseased structures. If the patient is a female, in addition open the posterior cul-de-sac. Flush out the abdominal cavity thoroughly with sterile saline solution, using a large perforated glass tube slightly curved. Close the abdominal incision, and before tying the last two sutures, fill the abdominal cavity with saline solution at a temperature of 112 degrees. Place a good sized rubber drainage tube, split open, in which is placed gauze or wicking, through the opening in the cul-de-sac, thus providing free drainage at the most dependent portion of the peritoneal cavity. The vagina can be packed with dry sterile gauze, in addition to placing a large amount of the same at vaginal introitus, which must be changed as frequently as saturated. In male cases the drainage can be made from above the symphysis with one tube reaching to the cul-de-sac and another to the right inguinal region, in cases arising from perforating appendicitis. I do not recommend sponging or evisceration, merely using gauze strips freely to pack off the diseased portion while operating; nor do I attempt to disturb the protecting lymph that nature has put out which inhibits the absorption of toxic substances. In fact do not handle or irritate the peritoneal surface any more than is necessary to complete the operation quickly. Get the patient off the operating table in the shortest possible time consistent with good work. A dextrous operator will seldom require more than fifteen minutes to complete the operation and have the patient in bed. This short time, together with a small amount of anesthetic, will avoid shock and vomiting that follows a long anesthesia. I have not had a case of shock to occur since I began the use of the sub-mammary injections of saline solution during the operation. Place the patient in bed in Fowler's position, thus bringing gravity to your aid. With the abdomen filled with salt solution, and a dependent opening, a current will be established that will continue as long as there is anything to drain, and this is aided by the frequent application of dry sterile gauze to the vulva in contact with the lower end of the drainage tube.

I employ stomach lavage twice daily for several days following the operation, and avoid toxæmia that will otherwise follow. I support the patient's strength by the hypodermic administration of strychnine freely, and the hourly injection into the rectum of four ounces of saline solution for several days. The Fowler position keeps the toxic substance away from the dome of the peritoneal cavity where absorption is most rapid.

I believe, with the general adoption of the above outlined methods, the mortality of this dreadful disease can be reduced to a percentage that will be gratifying to all.

J. F. Baldwin, Columbus: There should be a distinction made, I think, between "diffuse" and "general purulent" peritonitis. This was not done by Dr. Murphy, of Chicago, in reporting his celebrated list of cases of what he called "general purulent peritonitis." He included in his list all cases in which there had been any perforation of any part of the alimentary canal, whether the cases were seen a few minutes after perforation, or seen after the expiration of several days. It is not fair to call all these cases general purulent peritonitis. They are all cases which may perhaps later become of this character, but they should be grouped into separate classes. So with diffuse peritonitis, we seldom operate on a case of appendicitis, of two or three days standing, in which we do not find more or less diffuse peritonitis, and yet the formation of pus may be very limited, or there may be no pus outside of the appendix itself.

It is a very different proposition when we come to true general purulent peritonitis, where, as far as we can judge, the entire peritoneum from top to bottom is filled with pus. Two or three weeks ago I had in one week three of these cases. The first case was in a young girl of sixteen, near Wapakoneta. She had been sick about ten days, and there was every evidence of general purulent peritonitis. Two or three days later I had a similar case in the person of a ten-year-old boy living near Denison. The third case was in a man of forty-five living in Circleville. In all of these cases the disease had been in existence about the same length of time; in all the condition of the patient was desperate, and there seemed to be little hope of relief by operation. Nevertheless, in all an incision was rapidly made over the appendix, which in all was found gangrenous, and with no evidence whatever of any protecting adhesion. The pus poured out of the incision and seemed to come from the general peritoneal cavity. A second incision was made above the pubes, and in each opening tube drains introduced with gauze, and the patient placed nearly upright in a rocking chair. In all of these cases, fortunately, recovery seems to be taking place, and so much time has now elapsed that I think we may assume that convalescence will be complete. In all of these cases pus was present in large amounts, and it was exceedingly offensive. These are the cases which a few years ago would have been flushed out with large amounts of water, multiple incisions would perhaps have been made, and much drainage introduced, with the result that the mortality would probably have been one hundred per cent.

The third case presented one interesting feature, namely, that two blood examinations had been made shortly before the operation by two physicians, one of them at least an expert with the microscope, and both of the physicians assured me that there was no leukocytosis present. The prognosis, therefore, theoretically at least, would be entirely hopeless. A third blood examination was made a few hours after the operation, and this also showed no leukocytosis. Nevertheless, this patient recovered as satisfactorily as the others.

In none of these cases was the stomach flushed out nor was the rectal tube used for the introduc-

tion of salt solution. When vomiting has been a pronounced feature of the case, washing out the stomach is of considerable importance, and the rectal use of salt solution is probably an advantage, though not as important, I think, as some writers would make it appear.

The Fowler's position I regard as of prime importance, since it enables the pus to drain downward readily from the diaphragm, which is the point of danger. I have found no means of securing the Fowler position anything like as satisfactory as an ordinary rocking chair. With pillows and blankets this can be made entirely comfortable, while it may be tilted forward or back as the physician wishes, and may be easily moved from one part of the room to another. Such a rocking chair can be found in practically every house, and is much superior to any other device I have seen. Fowler himself advised raising the head of the bed, but if this is done the patient is constantly slipping toward the foot of the bed and is held in position with great difficulty.

Chas. Graefe, Sandusky: The position that Dr. Baldwin has just taken seems to me just a little in advance of the usual procedure in these cases, and my personal experience with one of them within the past month makes me think that something has been omitted in the treatment given. I will state the case.

It was that of a child ten years of age. The history was somewhat indefinite, but the trouble was of some days duration and I diagnosed it as general peritonitis probably due to perforating appendicitis. The next day at noon, after bringing the child ten miles on a car to the hospital, upon incision I found the abdomen filled with stinking pus very generally diffused, which I drained by a counter opening in the lumbar region and after irrigation I put her to bed as soon as possible. Contrary to my expectation she did not die but the use of the rectal tube and stomach pump had no effect at all upon the amount of gas which filled the intestines and every coil seemed to be almost a separate reservoir. Though faithfully carried out the treatment by the use of the stomach and rectal tubes made no impression and the symptoms were not relieved, and as the child grew weaker every day and was almost at the point of death, I opened the abdomen on the other side and seized the first coil of intestine I could grasp and opening it inserted a drainage tube as far as it would go. That marked a change in the condition of the child, not only was the gas removed, but after some hours considerable offensive fecal matter was discharged and I am certain that the child would have died if she had not had this relief. The most peculiar thing about the case is that I was able to close the fistula with adhesive plaster after it had discharged a couple of weeks. The after treatment of these cases, in my opinion, is just as important as the operation and must be carefully and intelligently carried out to save them.

L. G. Bower, Dayton: In the case of general peritonitis and those cases in which we elevate the head by lifting the head of the bed, recently I have, in a few cases of appendiceal abscesses,

raised the head of the bed ten or twelve inches and then turned the patient entirely on the right side. This position assists the drainage of the cavity. We also find this elevated position especially good in those cases of pelvic infections in women, in which we have the cul-de-sac to drain through. I find it a more favorable position, not only for free drainage, but for the collapse of the cavity itself. I have found it better in those cases in which we attempt to cleanse the pelvis, instead of flushing with a tube put in the bottom of the cavity, and then let the cavity overflow, to lift the table so as to elevate the head six or eight inches, then let the patient come slightly out of the anesthetic, then pour the water in out of a pitcher and pump it out with a stomach tube. There will be a large amount of debris removed by this procedure that you would not get otherwise. It is important when you are through flushing to leave the cavity as dry as possible. You can pump it out perfectly dry, or nearly so, without traumatism.

D. S. Hanson, Cleveland: I wish to congratulate the first speaker (Dr. Humiston) upon his pains-taking care of the patient after operation. It is certainly very gratifying to see a doctor take so much pains with the after care of patients. Oftentimes the surgeon does not give the minute and careful attention to his patient after the operation that he has before.

H. B. Gibbon, Tiffin: We are hearing much regarding early operations. I would like some expressions as to what condition a patient should be in when we would or should refuse to operate.

F. C. Larimore, Mt. Vernon: I have been very much interested in this paper and the discussion, but am very much surprised that my friend, Dr. Baldwin, says that the normal saline enema cannot be given the patient except in a hospital. It can be very conveniently given in an ordinary rocking chair, which has a place on which to hook a fountain syringe. A fountain syringe can be found in every town and hamlet in this country. Hook the fountain syringe on the rocking chair six to fourteen inches above the level of the anus, and put in the bag of the syringe a pint and a half of the normal saline solution, and introduce the tube. Another thing of importance is to prime the tubing before the nozzle is introduced. Any adult will absorb one and one-half pints of the solution in forty minutes. Let the patient rest one hour and twenty minutes, and repeat the rectoclysis with another pint and a half; you can go on day and night in this way. I can see that there might be some difficulty, if the patient sits in the rocking chair, with the tube, but in this event use a right angle or an obtuse angle nozzle, so that in this way it will accommodate itself to the position of the patient, and there will be no interference with the flow.

G. M. Todd, Toledo: I would like to say a few words on the subject of drainage. The question has been raised as to the method and the best material to use. I may have ideas that a great many of you may not agree upon as to drainage. A series of experiments conducted on dogs has shown conclusively that only a very limited area of the abdominal cavity can be

drained, no difference what material is used, gauze, rubber tubing, glass or combinations of such, on account of the adhesions which soon form. In the dog, after the drain had been in place twenty-four hours, it was impossible to force water injected into the abdominal cavity through the drainage tract.

I am convinced by this that drainage is only a localizing process, a means of holding the infectious material until nature can surround this area by barriers of lymph and adhesions.

I use gauze almost exclusively, often protecting the tissues from the gauze by rubber.

F. F. Lawrence, Columbus: It seems to me that one of the most important things for us to emphasize in the discussion of this subject is that such a thing as idiopathic peritonitis is of very doubtful existence. As the profession and laity both are becoming better informed on the subject of appendicitis and other abdominal diseases which have been active causes of peritonitis there is a diminution in the number of cases of peritonitis. In all cases, whether there be local or general peritonitis it matters not, there is some cause that is strictly localized and within the possibilities of surgical cure. This one thing ought to be constantly emphasized. Another thing that is suggested by a case reported by Dr. Barnhill is that in the septic cases we will have the largest number of intestinal paralyses. Intestinal obstruction, mostly due to paralysis of the wall of the intestine, in this most fatal form causes a constant damming back and increasing sepsis. Another case suggested by one of the cases reported by the doctor; he speaks of the sudden subsidence of the pain and sudden dropping of temperature. The probabilities are that if at that time, instead of resting upon the delusion that the patient was improving, an operation had been performed, he would have found merely a gangrenous appendix without peritonitis and the prompt operation would have saved his patient. In other words, the sudden stopping of the pain and dropping of the temperature means, in a large majority of cases, gangrene and it is the most dangerous thing in the disease. A gradual subsidence is a different proposition. In this case the patient was seemingly improving.

There is another form of sudden subsidence of pain and temperature elevation with signs of collapse which comes with a perforation which is a very different proposition, but in the gangrenous case your patient is apparently improving, and you are deluded with hope that the case is getting along all right. That is the time to get busy and to have the appendix out quickly. It seems to me it has been emphasized both by the author of the paper and those that have taken part in the discussion, that the great essential in all cases is reasonably rapid work.

While I do not believe we are justified in working against the clock at all, we should do the work as rapidly, and with just as little handling as possible. I do not know whether it is wise to make an effort to search for the appendix in abscess cases if it does not really come to view or if it requires any disturbance of the relationship of the parts. I doubt whether we are going to benefit the patient. In a general suppurative peritonitis case, if a search is made for the ap-

pendix and if it does not come to sight quickly, we should drain, but don't attempt to drain with a dam, a coffer dam or any other dam. It will not drain pus, it will only drain serum. You can't drain pus, blood or anything else out of the peritoneum or any place else with wick of gauze. It is the solid or semi-solid particles that remain, and these are the parts that must be removed. All I try to do in all these cases which I drain with a tube is to pump the tube and pump it completely. Rotate the tube frequently and the entire abdomen will be drained.

Dr. Barnhill (closing discussion): I desire to thank the gentlemen who have taken part in the discussion of my paper. Many valuable points have been thus brought out. The term diffuse peritonitis has been applied, in my paper, to cases of quite general inflammation of the abdominal peritoneum, resulting from perforation, and of such a character as to require drainage beyond the seat of original infection; and not to cases of limited inflammation which are found in almost every case of appendicitis. The term general peritonitis may very properly be used in those cases in which practically the entire peritoneum has become involved.

There are decided advantages to be gained by the lateral incision, referred to by Dr. Todd. In curtailing my paper to bring it within the limited time, I omitted a description of one case in which the lateral drain had been used with excellent results. The advantages of this mode of drainage have been advocated by several writers. About two years ago Dr. Allen, of Cleveland, published an interesting report of nine cases thus treated, and emphasized the special advantages of the lateral drain.

I am glad Dr. Humiston has laid additional emphasis on the saline infusion, and slow enemata. With him, I regard these as being of very great advantage in treating diffuse peritonitis.

In reference to the advantages of the tube, glass or rubber, the tubes really furnish drainage while the gauze does not, or does so very imperfectly. A split rubber tube may be used to inclose a strip of gauze which when saturated may be withdrawn, thus removing a quantity of pus and leaving the tube as a hollow drain. By using a tube the pus, excess of serum and debris, may be withdrawn at suitable times. The great advantage of the tube as a means of drainage is that it permits of being emptied at frequent intervals, if need be, with siphon or cotton on the end of an applicator, thus removing a considerable quantity of pus which cannot be eliminated through a gauze drain. By leaving a tube pointed down in the lowest part of the infected area, the material can be removed as often as it collects until the discharge ceases. With gauze this cannot be done except in so far as it may provide an opening through the abdominal wall after its removal. Cleanliness is indispensable to healing, here as elsewhere.

Probably the most important features in the modern treatment of diffuse peritonitis are thorough drainage without swabbing, the Fowler position and empty stomach, and the slow saline enemata.

OPERATIONS UPON SOME COMPLICATED CASES OF APPENDICITIS AND SOME CASES RESEMBLING APPENDICITIS.

H. T. SUTTON,

Chief Surgeon, Good Samaritan Hospital,
Zanesville, Ohio.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

Notwithstanding all that has been said and done upon the subject of acute appendicitis, still quite a few lives continue to be sacrificed upon the altar of delay that should be saved.

The surgical technique of the present day has reached that stage of perfection where any further reduction of the mortality of this disease must depend upon the physician and surgeon getting closer together and further educating the people in regard to the necessity of prompt surgical interference in the early stage of the malady.

But seldom in these days do we find that the attending physician is responsible for the delay or neglect in the fatal cases, but the family and friends are to blame.

It is sad, indeed, that there is as yet no rule by which we can distinguish, in the early hours, the cases that will recover without surgical interference from those that are bound to go on to perforation, peritonitis, gangrene and abscess. I dare say we have all operated upon critical cases, where the involvement of the appendix was found to be most serious and yet there were no positive external manifestations in evidence.

Until we can look through the abdominal wall and see accurately the pathological changes going on inside the abdomen, until that time the only safe course to pursue is to operate upon all cases in the early stage.

It is my opinion that but few cases are operated upon for acute appendicitis where an operation is found to be necessary. Even in those cases where a positive diagnosis is difficult or impossible, operative interference is just as urgent.

Nothing in surgery is simpler or easier than the removal of the appendix before serious complications have occurred. But, oh, how different afterwards! I know of no place in surgery where a little experience is more helpful. The skilled and well trained surgeons should and are saving nearly all cases operated before fatal collapse has developed. There are cases we are obliged to operate upon where there is almost no chance at all to save life. The sad part of such

last-resort work is that the discredit does not fall where it belongs. No matter what the circumstances may have been leading up to an operation, if the patient succumbs the death is recorded to the discredit of the surgeon and surgery, and nothing is said about those who counseled non-interference until death was certain.

The cases which I am going to report have each, in my opinion, points of special interest. They are as follows:

I. Acute appendicitis complicated with typhoid fever.

II. Acute appendicitis complicated with volvulus.

III. Acute appendicitis complicated with retention of urine.

IV. Appendix obliterated after repeated attacks.

V. Appendix obliterated after one severe attack.

VI. Chronic appendicitis treated for chronic gastritis.

VII. Infected gall bladder resembling appendicitis.

CASE I.

ACUTE APPENDICITIS COMPLICATED WITH TYPHOID FEVER.

I was called by Dr. Sealover, of our city, to see a boy fourteen years of age who had run a typical course of typhoid fever. Three weeks after the fever had subsided (and he had sufficiently recovered to have worked the third week in a drug store) he was taken suddenly and violently ill, with great pain in the iliocecal region vomiting, extreme tenderness and tympanitis over entire abdomen; pulse quick, weak and running about 130; temperature 104; delirious from the very outset of the attack. This condition had existed twenty-four hours when I was called. The attending physician thought that he had suffered a perforation of the bowels as result of the typhoid. After looking him carefully over, I gave as my diagnosis that he was suffering from an acute attack of appendicitis, probably superinduced by the typhoid. We promptly agreed that nothing short of an operation could save his life. He was at once removed to the hospital and the abdomen opened. We found the appendix distended with pus and containing a wooden toothpick one inch long. We also found a number of thick, inflamed indurated typhoid lesions, such as I would expect to find in the second or third week of the disease. The entire peritoneum was profoundly congested and indicated clearly that a general septic peritonitis was developing rapidly. The cause of his sudden and violent

illness was undoubtedly due to the infection in the appendix finding its way through the wall and invading the general peritoneal cavity, all of which was greatly aggravated by the typhoid lesions which were still present. We removed the appendix, placed a large iodoform gauze drain in the wound, injected salt solution under the skin, administered all kinds of stimulants and restoratives, but no impression was made toward staying the fatal course of the disease, for he died about twenty-four hours after the operation.

CASE II.

APPENDICITIS COMPLICATED WITH VOLVULUS.

I was called by Dr. Postle to Toboso, Licking county to see a farmer of thirty-two years of age. He had, two months before, suffered a typical severe acute attack of appendicitis, from which he had apparently recovered. On Thursday evening he was taken suddenly ill with sick stomach, vomiting and terrible pains in his right side. During the night he took, of his own accord, large doses of salts and oil, with no results, and did not call the doctor until the next morning, Friday. The doctor promptly recognized his sickness as a recurrent attack of appendicitis and urged that steps be hastily taken towards an operation. In this he was opposed by patient, family and neighbors until the next morning, Saturday, when it was plain to all that he was fatally ill and failing rapidly. At noon, when I reached the place, he was delirious, vomiting large quantities of fecal matter; bowels tremendously distended, pulse barely perceptible, surface cold and clammy. With cocaine as the anesthetic I hurriedly opened the abdomen, found a large volvulus of the ilium, with the twist close to the cecum, including two or three feet of bowel thoroughly black and dead. I also found a perforated appendix with one No. 5 shot just outside the perforation and three more just inside. The shot was accounted for only by the fact that he was very fond of rabbits. By the time the volvulus was released, the appendix removed, the patient was exhausted, so a large gauze drain was hastily introduced, and the patient put to bed, where he expired in a couple of hours. An operation a few hours sooner would have saved this precious life, and a much needed husband and father of several small children would have been alive and well today.

CASE III.

APPENDICITIS COMPLICATED WITH RETENTION OF URINE.

A young lady, twenty years of age, was brought into the hospital one morning by Dr. Frame, of

Cambridge, with a diagnosis of acute appendicitis of twenty-four hours standing. She was taken directly to the operating table. The symptoms, at a glance, seemed characteristic of the disease, except there was noticeable an unusual tumor-faction in the right side for such a short illness. Just such a fullness as we usually find after abscess formation has occurred. An incision was made along the outer edge of the rectus muscle, and at once a tumor the size of a cocoanut was exposed to view. I at once made inquiry in regard to the amount of urine she had been passing. Upon being assured that there had been no history of retention, I pronounced it an ovarian cyst and was about to undertake its removal, when it occurred to me it might be well enough first to introduce a catheter into the bladder, which was done, and the tumor disappeared. A gangrenous appendix was then found and removed and the abdomen closed. The patient made a most satisfactory recovery. I am quite sure that if some one had related such an experience to me before this happened, I would have considered such confusion inexcusable.

CASE IV.

APPENDIX OBLITERATED AFTER REPEATED ATTACKS.

A young girl, nineteen years of age, had her first attack of acute appendicitis four years ago last June. At least it was so pronounced by two of the most competent physicians in the city of Zanesville. Their report says that she was taken suddenly ill with great pain in the iliocaecal region and that she vomited fecal matter for five or six days, and her bowels were greatly distended and tender and indicated general peritonitis; that she made slow recovery. Six months later she had a similar attack, although the symptoms were somewhat milder. She again recovered and remained fairly well for three years, until January, 1907, when she again had another very similar attack. She gradually recovered from the acute symptoms, but the pain in the region of the appendix continued until April 15, three months, when she was referred to me for operation by Dr. Bateman. The operation showed the appendix to be almost entirely obliterated. It was about a normal length, but not larger than the ordinary cord string. There were no adhesions nor anything else abnormal within the abdomen. It appeared harmless and insignificant, but nevertheless I removed it, with the result that she has been absolutely free from pain or disturbance of any kind for eight months. This is the second case of this kind in my experience. In a former case, which occurred sev-

eral years ago, I thought it unnecessary to remove it, and the patient is still having pain.

CASE V.

OBLITERATION OF APPENDIX AFTER FIRST ATTACK.

A man thirty-six years of age was brought into the hospital from a nearby town with a positive diagnosis of acute appendicitis already made by the attending physician. Word had been telephoned ahead to prepare for an operation immediately upon his arrival. The history of the case was as follows:

Five years before he had what the doctors pronounced an acute attack of appendicitis, with general peritonitis. His sickness lasted over several weeks, and so violent was the nature of his illness that his life was despaired of by physicians and friends for days, but he recovered. The pain, however, never entirely left his right side, and he was apprehensive of another attack at any time. He had made up his mind that at the first intimation of another attack he would be operated at once. So one night about 6 o'clock he was taken with all the symptoms of a violent acute attack of appendicitis, so much so that his physician, a man of extraordinary intelligence and large experience, had no doubt about it being a typical case. The doctor remained with him until early morning, when he brought him to the hospital on the first train on a stretcher. After a hasty examination, the doctor's diagnosis was confirmed by me, and an operation at once performed, with the result that we found total absence of the appendix and everything else in the abdomen normal. He said the next day that he felt better than he had for five years. It is a little over one year ago, and he has been in perfect health ever since. No doubt the appendix was obliterated in the first attack, five years previous, and the last attack was due to imagination and intestinal intoxication.

CASE VI.

CHRONIC APPENDICITIS BEING TREATED FOR CHRONIC GASTRITIS.

A young man of twenty-eight years of age from one of the larger cities of the state bought an interest in one of our numerous thrifty manufacturing establishments and came to our city to live. A short time after his arrival he called at my office and said: "I have chronic gastritis, and I have been under the care of a stomach specialist in my home city for the past two years. I am out of medicine and feeling badly, and I want you to give me something to tide me over until I shall be able to revisit him. I put him on the table; palpated an enlarged indurated appendix. I promised him a permanent cure for his

gastritis in the removal of his appendix. The operation was performed, with the result that this poorly nourished and very miserable man within three months had put on twenty pounds of flesh and has had no symptom of stomach trouble since the operation one year ago.

CASE VII.

INFECTED GALL BLADDER, RESEMBLING APPENDICITIS.

A woman forty-seven years of age was brought into the hospital from Crooksville by Dr. Dennison, of that city. Her condition was extremely critical, after four or five days of acute illness. The history was as follows: Occasional attack of gall stone cholic for many years; otherwise healthy. She was the mother of a large family of children. On Friday night she was taken suddenly and violently ill with high fever, pain in the right side, vomiting, tenderness and tympanitis over the entire abdomen. Three days later a distinct tumefaction could be palpated in the right side, the lower border reaching down to the McBurney point. We were not able to make a positive diagnosis between the gall bladder and the appendix. Dr. Dennison leaned towards the gall bladder, but it seemed to me that it was more likely to be an appendicital abscess. She reached the hospital four days after the beginning of the attack. An operation was at once performed. Cocaine was the anesthetic used on account of her weak heart and general prostrated condition. The incision was made over and above the McBurney point, with the result that we found an elongated and infected gall bladder, containing eighty gall stones and quite a quantity of pus. The bladder was firmly adhered to the abdominal wall, so there was nothing to do but clear out, irrigate and drain. She made a good recovery, and it is now two years and she has enjoyed perfect health ever since.

Koplik's spots are pathognomonic of measles "rubeola." They are bluish white specks surrounded by a red areola, and occur on the buccal membrane at a point corresponding to the line of the molars when the jaws are closed. They occasionally appear before the exanthem.

Charcot's joint—a tabetic arthropathy, primarily the result of a spinal lesion, e.g., tabes. Pathologically the joint undergoes a permanent arterial, muscular, osseous and cartilaginous degeneration. Clinically, it is characterized by an abrupt onset, enormous swelling (effusion) and an absence of all inflammatory symptoms. The joint rarely suppurates and never becomes much reduced in size.

WHAT SHOULD A PHYSICIAN IN GENERAL PRACTICE KNOW AND DO IN A CASE OF APPENDICITIS?

S. B. MCGAVRAN,
Cadiz.

[Read before the Ohio State Medical Association, Cedar Point, 1907]

To know and do the right thing at the right time is the watchword in every avenue of life. I am proud to say that this is no less true in the profession of medicine. It is in evidence all about us, as is shown by the increasing interest in medical societies, by the general uplift of the standards of entrance to medical colleges and the great demand for better equipped medical schools. Today the desire to learn the truth and be rid of prejudice actuates our profession as it never did before.

It has been said that what we know is bounded on all sides by what we do not know. There is such an infinite sea of knowledge beyond us that our *tiny* intellectual possessions are scarce to be considered. No one has a monopoly of wisdom.

Now when we come to ask the question, "What a physician in general practice should know and do in a case of appendicitis," we are met in the first place with the fact, that what we know is bounded on all sides by what we don't know, and that much remains to be learned in regard to diagnosis, and after a positive diagnosis of appendicitis, we find that what we know in the treatment is bounded on all sides by what we do not know. It is hard for us to say this is an urgent case and if so an immediate operation is required to save the life of our patient; or a mild case in which we can safely follow the expectant treatment.

I repeat, it is hard to say whether we are up against an acute suppurative disease with perforation and gangrene of the appendix imminent, or have a case of *alarming* symptoms that in a week will pass into a condition of comparative safety and latency. Again we are not always sure as to our bearing in latent appendicitis.

If I should ask the question what a physician in general practice should know and do in a case of diphtheria your answer would be no doubt that an early diagnosis should be made and antitoxine promptly administered.

Now when we come to the question, "What a physician in general practice should know and do in a case of appendicitis," the answer will come from every one of you as you answered in diphtheria, that an early diagnosis should be

made, followed at once by medical or surgical treatment. Notice, if you please, the answer, an early diagnosis followed by medical or surgical treatment. To make this answer more complete we might add an expectant middle of the road treatment. After a diagnosis in appendicitis, as I said before, we can't tell what course this particular case is going to take, whether it is going to end quickly in resolution, or result in the formation of an abscess which will seriously menace the life of the patient, or by an unprotected perforation light up an almost surely fatal peritonitis. These are hard problems to solve and unfortunately the aids to their solution are not numerous or altogether trustworthy.

I now come to the question, "What should a physician in general practice know and do in a case of appendicitis?"

My answer first. He should be able to make a diagnosis. Second. The treatment to be effective, should be operative.

Let us consider for a time, first, the symptoms that lead up to an easy diagnosis in appendicitis; second, the difficulties experienced in making an early diagnosis; third, why the treatment should be operative and not medical.

We then have before us three propositions. First, the cases that are easy to diagnose; second, the cases that are hard to diagnose; third, the only treatment from which we can expect positive results—operative.

It has been said that if the three cardinal symptoms of appendicitis are kept in mind the early diagnosis is in nine cases out of ten very simple. The three cardinal symptoms are *pain*, *tenderness* and *rigidity*. It has also been said that appendicitis is one of the most readily diagnosed of all diseases. From my experience I would not deceive myself nor would I dare to misdirect you by saying that the diagnosis of appendicitis is simple and easily made, but on the other hand I would prefer to have you know that it requires your best efforts to make a timely diagnosis; a diagnosis that gives your patient a chance for his life. You will please take notice that what I am trying to thrash out is that the physician in general practice know, first, how to make an early diagnosis. It has been said the early bird gets the worm. So in many cases of appendicitis; its early discovery and followed by prompt surgical treatment gets the worm; saves the life of the patient, and brings credit to the doctor. By an early diagnosis. I mean a diagnosis soon enough so that the proper treatment has not been delayed until such a time that no

longer any hope could be expected from the removal of the appendix.

I will briefly enumerate the symptoms that make an early diagnosis of appendicitis easy and conclusive. Moderate rise of temperature (99-101), a feeling of nausea followed by vomiting, more or less rigidity of abdominal muscles and last but by no means least, the localization of the greatest tenderness at or very near the point indicated by Dr. McBurney—two inches from the anterior superior spine of the ilium on a line drawn from it to the umbilicus. If you have a case in which these symptoms present themselves with the *emphasis* placed on the symptom, the only pain on pressure at the McBurney point not as some would have you believe the maximum pain, you then have a case of appendicitis. The symptoms and conditions that follow will justify and support our first conclusion. There is nothing that gives a doctor more satisfaction than a positive diagnosis. Especially is this true in so treacherous a disease as appendicitis. All cases of appendicitis, however, are not so easily diagnosed as this familiar picture that I have just shown you. In other words there are cases of appendicitis in which an early diagnosis is hard to make. Prof. E. Sormenburg, the eminent Berlin surgeon, confesses the difficulty experienced by a skilled diagnostician in making an early diagnosis in appendicitis. It is the general practitioner of medicine and not the specialist that meets these hard cases. It is up to him to know or not to know. "To be" or "not to be" right in diagnosis is the question. We must admit that errors in the early diagnosis of appendicitis are sufficiently frequent to cause the death of many patients.

The active busy life of the general practitioner of medicine is so strenuous that it is not surprising that he should at times overlook or fail to apprehend just what is before him; he is satisfied with the subjective symptoms. In this connection I will say, "Let him that is without sin cast the first stone." The reason then why an early diagnosis in appendicitis is not made often, is due to the fact that the physician does not carefully examine his case; he is quite satisfied with subjective symptoms, or that it is a bad case of colic and he prescribes a teaspoonful of paregoric by the telephone, or more bravely he makes a visit and gives a hypodermic of morphine and directs that the hot water bottle be applied. He is called again the next day and finds the patient no better, suffering with pain in the abdomen; *most anywhere in the abdomen*, most frequently in the umbilicus and hypogastric region, and

steadily increasing and extending to the epigastric region. You ask the patient to locate the pain and the chances are he will say that it is the worst in the stomach or perhaps in the descending colon and he will not locate it in the region of the appendix at all. Here is the chance for the doctor to make the fatal mistake if he does not carefully examine his case. Here perhaps is a chance to make an early diagnosis. He will call again on the third day. Finds the patient restless, abdomen slightly distended and pain in the stomach and in the region of the umbilicus and *pressure* of the *appendix* increases the pain in the *stomach* and the vomiting. Here the doctor stops to think and finds the *tender spot* over the McBurney's *point*, the most significant symptom of inflammation of the appendix.

The physician in general practice should know and give heed to every case of abdominal pain and, before he makes a diagnosis of colic, should exclude appendicitis. The physician in general practice should know that the most important diagnostic sign is the *tender spot* over the point midway between the anterior superior spine and the umbilicus and that a *touch* over this point will reveal the existence of exclusive *tenderness*. It is the *tender spot* and *not* the *pain* that is the diagnostic sign. It is too often assumed by the practitioner that there must be spontaneous pain in the right iliac fossa whenever acute appendicitis develops. It is perfectly possible, however, for an active inflammation of the appendix to be dangerously progressive without the slightest pain in this region, *only by pressure*. The watchword in the Spanish-American war, "Remember the Maine," and as a diagnostic sign in appendicitis I would have you *remember the main tender spot* over McBurney's point. As I have said before, the aids in diagnosis of appendicitis are not numerous or altogether trustworthy. The temperature does not seem to be a reliable guide. You will find temperature 99-100 or normal first day; 101 or 102 second and third days; sub-normal fourth, normal fifth and sixth and slightly elevated seventh or eighth day. The temperature on the fourth day in the mouth or axillary may be sub-normal and in the rectum 100.2-5, a difference of three and one-half degree. Cases are reported of a difference of six and one-fourth degrees between the temperature of the mouth and that of the rectum on the sixth day. This unusual difference is not of any diagnostic value in making an early diagnosis. It might show that pus is imminent or already present. The pulse is of no more value than the temperature as an aid to diagnosis. It is very unsatisfactory.

It may be 72 or 110. Nausea and vomiting are present in the majority of cases, but it does not furnish any information in diagnosis. Anorexia and digestive disorders are rarely absent, but you will find this condition in many other diseases. Diarrhoea and constipation alternate, but either symptom may be a prominent one during the entire course of the disease. Rigidity of the right abdominal wall is generally present, but circumscribed rigidity over the region of the appendix is only present in about half the cases.

Now let us consider pain as a diagnostic symptom. If we have a circumscribed pain over the region of the appendix we should give it prompt and due consideration. The fact, however, that we have pain in this region, a severe pain, does not warrant the physician in making a diagnosis of appendicitis. In acute inflammation of the pleura we not infrequently have abdominal pain. This referred pain may give rise to a diagnosis of appendicitis when the real lesion is pleurisy or pneumonia. Mistakes in diagnosis have been made in which appendectomy has been done under a wrong apprehension. The initial pain of acute inflammation of the appendix which is so commonly referred to the umbilicus is *to me more important*. This pain is important for the reason that it is due to the peristaltic action of the caecum or of the appendix dragging upon the attachment of the peritoneum to the abdominal wall. If we depend upon pain in the right iliac region for our early diagnosis in appendicitis we will be mistaken many times. If we depend upon pain for our prognosis we will be depending upon a guide that is worse than none. Great pain may be followed by resolution, slight pain by fatal perforation. The cessation of this umbilical pain on the second day without improvement in the other symptoms is due to cessation of peristalsis caused by the inflammation having spread to the muscular coats of the bowels and should be regarded by the general practitioner as an alarming symptom. While pain in the epigastric and umbilical region is not diagnostic of appendicitis it is no doubt a significant symptom and the general practitioner in this connection should make diligent search for the *main sign*, the *tender spot* at or near McBurney's point.

I saw a case in consultation, a little girl seven years old, in which the first symptom was pain in the urethra, frequent and painful urination and a *catheter* had to be used later. This case the diagnosis was made and verified by a post mortem in ten days to be appendicitis. While I am making suggestions as to symptoms that will aid

in the early diagnosis of appendicitis, I ask you not to overlook the pain in the urethra, urinary and genital organs. The right *testicle* may be retracted and swollen and painful in the early period of appendicular inflammation and when you find that condition it is important that you exclude appendicitis before you make a diagnosis of cystitis, urethritis or *orchitis*. The general practitioner should be able to make a differential diagnosis. We might say, as we did before, we have the easy and the hard cases to differentiate, an easy case when we are sure of our diagnosis and all possible diseases excluded. The hard or difficult conditions that might give us trouble in differential diagnosis may be found in *intestinal obstruction*, *typhlitis*, *tubercular typhlitis*, *tumor*, typhoid fever, pneumonia or pleurisy, disorders of the uterus, movable kidney, inflammation of the bile ducts, biliary colic, empyema of the gall bladder, perforated gastro intestinal ulcers, extra-uterine pregnancy, membranous typhocolitis, gastro enteritis, enterocolitis and hysteria, etc. This is no easy task. It means a *general knowledge of medicine*.

That diagnostic errors may not discredit your work, I think every physician should know that every case of appendicitis requires consultation.

Appendicitis is considered today under two forms, first, the catarrhal, second, the ulcerative. I am not so young but that I can remember when we had the old trio, typhlitis, paratyphlitis and perityphlitis, and a differential diagnosis was thought to be important. Today for the most part we accept appendicitis for each and all of them. The etiology of the catarrhal and ulcerative forms is different. The symptoms that lead up to the diagnosis in both forms are practically the same. The prognosis in the catarrhal form is perhaps better than in the ulcerative form, but the prognosis is bad in either form if you don't have an early diagnosis and proper treatment. So I don't think we need split hairs as to a differential diagnosis between the catarrhal and ulcerative forms of appendicitis. We have acute and chronic appendicitis. We might say we have primary and latent appendicitis. The primary or first attack is for the most part followed by subsequent attacks. Tendency to recurrence is one of the marked features of appendicitis. The danger to life increases with each successive attack; that a long respite does not mean a cure, and that it is impossible to predict a cure, and as long as the appendix remains the disease is latent, when once it is begun.

I now come to my third and last proposition, viz.: The only treatment from which we can

expect positive results is operative. The treatment of disease is the great end of all our studies relating to pathology, general and special. It is however, the most difficult of all the branches of medicine. It is difficult, not alone from the uncertainty as regards the correctness of therapeutical principles, but because principles undoubtedly correct in their general application are to be greatly modified in adapting them to the varied circumstances pertaining to individual cases of disease. Cases differ in the degree of severity and extent of disease. There is a difference in the constitutional condition of patients. It is therefore difficult to formulize rules in the treatment of disease. If this were possible the practice of medicine would be a mechanical not a rational art. The successful application of remedies either medicinal or surgical requires not only knowledge, but reasoning powers, judgment, good sense and practical tact. In the practice of medicine we deal with cases of disease separately, not in aggregates. How are the facts in the treatment of disease obtained? Mainly by experience. What does experience teach us in the treatment of appendicitis? It teaches us two things: First, that medical treatment at best is only palliative, and that the results are only temporary. Second, it teaches us that the only treatment from which we can expect positive results is appendectomy. The treatment of appendicitis belongs to the surgeon and not the general practitioner of medicine. Experience draws the line sharply and plainly. This is a very important question. The life of the patient depends upon the immediate action or otherwise of the doctor. I would have the general practitioner to know that if this particular case is not manifestly a simple catarrhal appendicitis with adhesive peritonitis, *to recommend an operation*; if this is not assented to, all responsibility in the case is disavowed. This is the only safe and sane thing to do. That we do have mild and simple cases that pass apparently safely from one attack to another is no doubt the reason that the practitioner is at times slow to turn his case over to a surgeon and he hugs the delusive phantom of hope until he comes up to or passes over the danger line. That this mistake occurs we must admit, but it does not occur alone with the doctor. I have in mind a case in which the doctor made an early diagnosis of appendicitis and turned the case over to a surgeon and had the patient in the hospital by the third day. The patient seemed better the fourth and fifth day and the surgeon did not operate. On the seventh

day septic symptoms developed and an operation was performed and a large quantity of pus was found and the patient died on the eighth day with septic peritonitis. It is difficult to differentiate between a mild and severe case of appendicitis. Your knowledge, your best judgment is put to the severest test. The delay of a day or two for therapeutical treatment may cause the death of our patient. It is a hard question to decide, that this case, or that case, does or does not require immediate operation. In this connection I would have the general practitioner to know to be vigilant, and if he must err, let it be on the side of too early, rather than that of too long delayed operation. Give the benefit of the doubt to our patient. If mistakes are to be made in the treatment of appendicitis let them be made by the surgeon. If there is any question as to the time when the operation should be performed; if conservatism should be observed about operating during an acute attack; if it is thought best to operate during the interval between the attacks or that the most suitable time for operation is about three weeks after the commencement of the attack, I would have the practitioner to know that these questions are surgical questions. Let the surgeon answer and be responsible for his judgment. The doctor's responsibility in a case of appendicitis begins and ends with the diagnosis. After the diagnosis, if the case requires treatment at all, it must pass into the hands of a surgeon. This rule should apply to every case, whether mild or severe, and perhaps more particularly so when the symptoms are mild, for in the simple cases you are more apt to be deceived and overlook the gradually increasing danger. How can the doctor tell that this *mild attack* will pass by without complication and that there is no occasion for surgical interference? How can the doctor tell that this attack will not go on to perforation; go on until the inflammation extends to the muscular coats of the bowels and as a result you will have abdomen distended with gas, *reversed peristalsis*, and the patient vomiting the dark coffee-ground vomit, after you have journeyed *alone* down the pike for seventy-two hours with your expectant, conservative treatment? It is truly a sad sight to see a doctor make a mistake in diagnosis and treat a case of appendicitis, first, for colic, second, acute indigestion, third ptomaine poisoning, then later typhoid fever, and finally for intestinal obstruction; or, after a correct diagnosis, to see a doctor hang on and treat a case medically with his salines every two hours, combined

with copious warm enemas, medicated or otherwise, high or low; rest and liquid diet, castor oil, ice for a day, then hot fomentations, and *later a blister* over the region of the appendix, then just before death ends all, to sustain and support his patient, give hypodermic of strychnia and stimulating enemas.

What should a physician in general practice know and do in a case of appendicitis? You have my answer, or to put my answer in a "nut shell," "Should know and do the right thing at the right time."

DISCUSSION.

Dr. Woodward, of Delaware: Are you an operating surgeon or general practitioner?

Dr. McGavran: General practitioner.

Dr. Woodward: It seems good to have a man in general practice set out these facts, and I am willing to listen another hour to such things. I have treated cases a great many years and never lost a case by death. I have advised operation in a few cases where they have refused, but whenever I get a case I am going to turn him over to a surgeon. My younger sister was taken with a severe pain, worse on pressure. She received morphine, which did not relieve her and she was hastened to a surgeon. It seems to me it did not take a minute for him to get the history, and he said she should be operated in the morning. I was present at the operation and he did it so nicely, he separated the muscles, after cutting through carefully, so as to avoid the possibility of an abdominal hernia. He had everything so clean and nice. Once when seeing a relative operated on I had been nauseated, but the further he went I felt better, and he said there would be no hernia, and when he turned up that appendix stiff and hard from inflammation, I said that I never would again treat a case, and if I did I would be guilty of a great wrong. He assures me he does not lose any cases. Take a clean case and take it early and it will be all right, and will not lose any unless it is an accident. There are accidents, but they do not lose them from the operation. We ought to turn them over to surgeons. They are the best friends, the general practitioner and the surgeon. Take no one but a careful, painstaking man, who tells the truth under all circumstances and does as he would be done with by others. When I get appendicitis I want to have the appendix out by a good, reliable man.

Dr. Mitchell, of Cincinnati: He has stolen my thunder and expressed the same things I feel very deeply. As an internist I have been slow to come to the radical position that many of my surgical friends reached many years ago, and particularly because I saw a great many cases of appendicitis recover under treatment; and then I saw cases apparently running an even course, suddenly flare up and the opportune time for saving the patient was lost, so I have come to the position the essayist has expressed. There are certain things that the general practitioner should

know definitely, certainly and surely about appendicitis. The doctor has put it completely. He should know the frequency of the disease, the danger of the disease, even in the simplest case. I have seen a case in my neighborhood die within twenty-four hours after the first symptom. He should know the diagnosis is sometimes exceedingly difficult. He should know the pain is sometimes located very differently from the point of usual location. I have seen cases where the pain was over the kidney, in the back, and the appendix was found turning up posterior to the cecum. I have seen it at the upper part of the abdomen and not on the usual side. But if we will remember its frequency and the number of typical cases, we will not be long in calling in a surgeon. I myself should want to have my appendix out within the first twenty-four or thirty-six hours if I had definite symptoms of appendicitis.

Dr. McGavran (closing discussion): We have been having tiffs for years between the general practitioner and the surgeon as to whether appendicitis should be treated medically or surgically. For my part, I do not feel that medicine would have any more effect on a diseased appendix than a fractured leg. The physician can recommend that the patient goes to bed and give him anodynes, but what can medicine do to cure the appendix? Hot water and cold water can do nothing whatever. I never did like to borrow anything. It seems to me this discussion has reached a point in which we are borrowing time, and I thank the gentlemen for what they have said. Every general physician should be able to do an appendectomy. Young men should learn to do it. It is not so hard an operation in the beginning before the adhesions arise. Either have somebody do it, or learn to do it, is the watchword for the coming doctor.

The Argyll-Robertson pupil is an early and important ocular phenomenon of the pre-ataxic stage of tabes. The pupil reacts to accommodation, but not too light, because of a sclerotic change in Meynert's bundle of fibers.

Babinski's reflex (the great toe phenomenon) is an extension rather than a flexion, which should normally follow titilation of the sole of the foot. When present it signifies an involvement of the pyramidal tract, and is of value, since always absent in hysteria.

In Cheyne-Stokes' respiration there is a regular alteration in both the intensity and rapidity of the respiratory movements, with a more or less well-defined and prolonged pause—"apnea." The breathing is shallow in its beginning and termination. It is an unfavorable prognostic omen, and is observed in diseases of the brain, toxic conditions and circulatory disturbances.

SYMPOSIUM ON EAR*

THE IMPORTANCE OF THE EARLY
DIAGNOSIS OF ACUTE INFECTIONS OF THE MIDDLE EAR.*

J. M. INGERSOLL, A. M., M. D.,

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of Western Reserve University, Cleveland.[Read at Cedar Point meeting of the Ohio
State Medical Association, August, 1907.]

The earlier a pathological condition is recognized and properly treated, the better the prognosis.

Whooping cough, diphtheria, influenza and the exanthematous diseases, especially measles and scarlet fever, are almost invariably accompanied by severe inflammation in the nose and nasopharynx and are thus very common causes of acute infection of the ear. Hypertrophy of the third and pharyngeal tonsils and inflammations in the nose are also frequent sources of infection. In all of these diseases, the infection reaches the ear through the eustachian tube and the physician should be constantly on the alert for any indication of infection in the ear and promptly begin the proper treatment, if such an infection occurs.

The first symptoms are a feeling of fullness in the ear, pain and a rise of temperature. In young children, frequently the only objective symptom is the rise of temperature and it is wise, therefore, to always consider the ear as one of the possible causes of fever in children. In patients old enough to talk, their complaint of fullness or pain in the ear, immediately directs the physician's attention to it.

The pain in the ear is due to the pressure of the inflammatory exudate on the drum membrane and the surrounding structures. The prevention of unnecessary pain is the duty of every physician. If the pain is not quickly relieved by a hot or a cold application externally, and there is fluid in the middle ear, then an incision should be made in the drum membrane. This incision relieves the pain, establishes drainage, shortens the course of the disease and thus prevents it from becoming chronic, and in most cases, prevents the secondary infection of the attic, antrum, mastoid cells and the brain.

Sometimes in spite of the most careful treatment of acute middle ear infections, the mastoid cells become involved. Such an extension of the infection is, however, much more liable to occur

if the middle ear is not freely drained, for then the pressure of the purulent secretion confined in the ear tends to force the infection into the attic, antrum, mastoid cells and labyrinth.

Brain abscess and sinus thrombosis are more liable to occur when the labyrinth and mastoid are involved than in infections of the middle ear alone. All of these complications, namely, infections of the attic, the mastoid antrum and cells, the labyrinth, the brain and the sinuses, occur much more frequently in chronic than in acute middle ear suppuration. The best life insurance companies recognize this fact and refuse to accept as a first class risk a man with a chronic suppurative otitis.

In other words, the improper treatment or neglect of acute infections of the middle ear frequently favors the development of very serious complications.

That deafness is a great misfortune is a self-evident truth. Acute infections of the middle ear seldom cause deafness. Chronic suppuration in the ear always causes some deafness. Almost every case of chronic suppuration in the ear could be avoided by the proper treatment of the acute infection and thus eliminate the cause of many cases of deafness.

The early diagnosis and proper treatment of acute infections of the middle ear is important therefore, because it prevents unnecessary pain, shortens the course of the acute infection, decreases the probability of chronic suppuration in the ear, prevents deafness and infections of the attic, antrum, mastoid cells and the brain.

THE PROPHYLAXIS AND EARLY TREATMENT OF ACUTE OTITIS MEDIA.

GEORGE C. JAMESON, A. M., M. D.,
Oberlin.[Read at Cedar Point meeting of the Ohio
State Medical Association, August, 1907.]

The importance of otitis media as a problem in preventive medicine appears from the following facts: (1) It is one of the most frequent inflammations with which we have to deal; (2) it is capable of producing disastrous results both to the sense of hearing and also to life itself; (3) it is an inflammation probably more often unrecognized and neglected than any other, by physicians as well as by the laity; (4) it is a condition

*Continued in July number.

which is in a large measure preventable, and (5) it is a condition which may in a large number of cases be aborted by early and persistent treatment.

The frequency with which the inflammation occurs is doubtless underestimated. Many cases are never brought to the attention of the physician. Many are secondary to other diseases, and while the primary disease is carefully treated the ear complication is often either entirely overlooked or carelessly regarded as an unavoidable accompaniment of the primary disease. Either attitude may be fatal to the functional soundness of the ear or even to the life of the patient. While no age is exempt from this inflammation, early childhood is a predisposing factor. Weil, of Stuttgart, in examining 6000 school children, found the ears affected in 23 per cent. of those under six; while Hartman found ear complications in 78 per cent. of infants receiving hospital treatment for various diseases (Danziger, N. Y. Med. Jour., Nov. 18, 1905). So common is otitis media at this age that an authority has remarked that "involvement of the middle ear in the serious diseases of infancy is almost the rule." (Randolph, *Progressive Medicine*, March, 1901, p. 410.) With a better understanding of this fact on the part of the profession, the importance of measures of prevention becomes self-evident.

That prophylaxis may be successfully practiced the etiology of the inflammation must be considered. There are certain conditions in which otitis media should always be looked for and anticipated by treatment. There is good reason to think that in children under six years of age every case of scarlet fever and every case of measles is attended with some degree of inflammation of the middle ear. Is it not therefore eminently proper and reasonable that prophylactic measures should be instituted from the very beginning of these diseases? The belief formerly held by some practitioners that an otorrhœa in the course of scarlatina is a favorable symptom, one which is inevitable and which will take care of itself if let alone, has doubtless cost many lives and the usefulness of many ears. If pus forms in the tympanum in the course of one of these fevers it should be discharged, and as a matter of course the patient will be relieved when it is discharged; but if by prophylaxis the pus can be kept from forming, the patient and his hearing may be spared a great danger. Bronchopneumonia and typhoid fever are often seriously influenced by otitis media. I have seen a rise in temperature and other threatening symptoms near the close of a pneumonia relieved almost im-

mediately by an incision through the membrane and drainage of the middle ear. The deafness and tinnitus of typhoid fever, instead of being regarded as a natural and necessary attendant symptom of the enteric condition may well be investigated in each case to determine whether they may not be caused by inflammation directly within the reach of treatment. Some epidemics of influenza produce an astonishing number of these inflammations. In the epidemic of 1903-4, in examinations of patients under six years of age it was the exception to find the middle ear intact. In gastro-intestinal troubles of infants, middle ear inflammation is a frequent and most serious complication, and one which is usually overlooked. Series of autopsies made by Ponfik, of Berlin, and others upon infants which had died of these diseases showed a large percentage to have had either catarrhal or purulent inflammation of the middle ear, many of them entirely unsuspected until disclosed upon the autopsy table.

The way in which otitis media so seriously affects general conditions is tersely explained by Randolph on the theory that "the tympanic cavity becoming infected, forms an incubator for bacterial growth and a generator for the production of bacterial toxins. These toxins are absorbed into the general system, and this toxemia will of course influence any concurrent or accidental ailment in any other portion of the body."

Infection may reach the middle ear through one of three channels; through the general circulation, through the external canal by traumatic perforation of the drum membrane, or through the eustachian tube. Only rarely does the infection come through the first or second of these channels. Authorities agree that nearly every case results from extension by continuity along the mucosa of inflammation which first exists in the naso-pharynx. This therefore gives an opportunity to intercept the inflammation, while it is still in the naso-pharynx and in many cases prevent it from ever becoming an otitis media. It is manifestly easier to conquer an enemy in an open field than it is to dislodge him from a fortress. Naso-pharyngitis in an infant invariably threatens the middle ear; and whenever it exists, either as a simple coryza, or as the result of the exanthemata or other diseases, it should be treated as early and as thoroughly as possible.

In all prophylactic and abortive treatment our aim should be (1) to prevent the entrance of infecting germs into the tympanic cavity, and (2) to maintain natural ventilation and drainage through the eustachian tube. The presence in the naso-pharynx of the various bacteria of in-

flammation demands energetic efforts to remove them. Warm alkaline and antiseptic sprays if used freely will do much toward this end. Douches, by forcing infection into the tube, may be productive of more harm than good, and should never be employed except by the surgeon himself and then very cautiously. Mucus and infecting germs may be forced into the tympanic cavity by too strenuous efforts at clearing the nostrils by blowing. The practice common with many nurses and mothers of partially pinching together with a handkerchief the nostrils of a child and then telling him to "blow hard" has probably been the cause of much mischief. The use of sprays in nervous and excitable children requires tact and patience, and even then it is not always possible to thoroughly cleanse the nasopharynx without a struggle. With care, however, nearly all cases can be so managed as to permit this very important procedure; and where it is indicated no trifling difficulty should be allowed to stand in its way.

Among prophylactic measures none is more essential than the removal of mechanical obstruction to the eustachian tube, such as may be occasioned by adenoids, enlarged tonsils or other hypertrophies. These will almost surely lead sooner or later to middle ear disease. Nearly all cases of recurring otitis media are associated with such obstructions, and where they exist removal is indicated as soon as they are recognized, if for no other reason, in order that the ear may escape injury. To allow a case of adenoids to go without operative interference until the hearing is dulled or the ear attacked by acute inflammation is to subject the patient to unnecessary risk. The fact should never be lost sight of, that *without the unhindered function of the eustachian tube, good hearing and a healthy tympanic cavity are impossible.*

Often the physician is not summoned until invasion of the middle ear has taken place. The opportunity for prophylaxis has not been given, or has not been improved, and the patient is suffering from the fever, restlessness and pain of the first stage of inflammation. What has occurred in a majority of cases is that inflammation has extended from the naso-pharynx to the eustachian tube, causing its mucosa to swell and practically close the passage. The air in the tympanic cavity is gradually absorbed, causing a more or less complete vacuum. This vacuum draws the blood to the capillaries of the tympanic mucosa, leading soon to the pouring out of serum and even of small amounts of blood. This furnishes a perfect culture medium

for whatever bacteria may gain entrance by the same route, and without proper treatment the case is likely to go rapidly from bad to worse.

The indication in such a case is plain. In some way the tympanic cavity must be ventilated and drained. Manifestly there are two ways in which this may be done—by incising the drum membrane, or by opening the eustachian tube. If the condition has existed but a few hours, there is still a possibility that the function of the tube may be restored, the middle ear drained and ventilated, and the inflammation checked.

Various ways of opening the tube have been suggested and practiced. The one which I have found most successful and practical is the application to the swollen mucosa about the orifice of the tube of a solution of suprarenal extract. This may be done as suggested by Grayson, with a cotton applicator bent to the shape of the eustachian catheter, saturated with 1-2000 solution of adrenalin and carried to the entrance of the tube where it is allowed to remain for a short time in contact with the swollen mucosa. Easier and simpler still is the application of the same solution by instilling it into the nostril from an ordinary medicine dropper, the patient's head being held for several minutes in such a position as to allow the solution to spread itself over the external wall of the nostril and throat. While by this method it is not likely that much, if any, of the solution enters the tube, the swelling of the mucous membrane of the nostril and at the entrance of tube is so greatly reduced that an exit is afforded for plugs of mucus, and drainage is re-established. If the application of the adrenalin be preceded by sprays, the effect will be correspondingly increased; but even where for any reason spraying is not feasible, the use of the adrenalin may still be of distinct benefit. If the patient be able to gargle with almost any simple solution this may be a useful addition to the treatment, as the muscular action involved in gargling helps to open the tube.

This method of treatment is so easy and simple of application that it can be repeated at frequent intervals by the nurse, and the effect thus maintained. I have repeatedly seen urgent cases, where the trouble had gone far enough to cause intense earache, improve promptly and steadily under this treatment. It can be applied to the youngest patient without harm, and it is a useful addition to other treatment for any acute inflammation of the upper air passages. In infants with coryza or with sore throat the ear is so apt to become involved that the application of adrenalin may be used as a routine with positive benefit

to the inflammation in the nose and throat, and with the result that many cases of otitis media will be avoided.

The treatment often recommended for earache, of dropping laudanum, solutions of atropin, oils, and various other liquids into the external canal, I believe to be not only inefficient but often positively harmful. The maceration of the drum membrane and of the lining of the canal by these various liquids, makes them a good soil for germs already present, or for those which may be introduced. Furunculosis is often thus added to the otitis media. The exterior of the drum membrane and the epithelial lining of the canal are not absorbing surfaces, and the amount of sedative effect to be obtained in this way from drugs is infinitesimal. With the exception of carbolic solutions, which have some local anesthetic action, I believe that whatever relief is derived from such instillation is due to the fact that these fluids are usually applied hot. The same degree of relief is often obtained by irrigating the canal with hot water. If antiseptics, as bichloride 1-10,000 or 1-5,000 or boracic acid to the point of saturation be added to this hot water the canal will be rendered more nearly aseptic, which is an advantage in case incision of the membrane should later become necessary. Following this irrigation with external dry heat applied by means of a hot water bag, hot salt bag, or other device, will usually afford some relief; but all of these measures should be estimated only at their true value. They have their place as soothers of pain. As curative agents their value is slight. The attendant should remember that by applying heat in the external canal he reaches no further than the drum membrane, which is but a small portion of the inflamed surface. The mucosa of the whole tympanic cavity, of the eustachian tube, and of the naso-pharynx is also inflamed; and by confining attention to the drum membrane the attendant is only palliating a small part of the trouble.

The application of leeches in front of the tragus by relieving some of the congestion in the middle ear is a more rational and effective procedure, but all of these measures fail to reach the source of the trouble; viz., the loss of function of the eustachian tube; and until this is restored there can be little hope of permanent improvement.

The general treatment of the patient is too universally agreed upon to need comment. Rest in bed, a liquid diet, a brisk laxative where constipation exists, and the internal administration of circulatory sedatives should not be neglected.

The abortive treatment above outlined will not be successful in every case. Many times the patient will not be seen until the inflammation has gone so far that nothing will suffice except operative interference. With marked bulging of the membrane or with grave general symptoms, incision should be delayed only long enough to prepare the patient and render the field of operation aseptic. But where the above line of treatment can be thoroughly applied at the very beginning of the inflammation a very respectable percentage of cases will yield, the need of operation will be avoided, and recovery will be rapid.

THE TREATMENT OF PAIN IN THE EAR WITHOUT OPERATION.

CHARLES LUKENS, M. D.,
Toledo.

[Read at Cedar Point meeting of the Ohio State Medical Association, August, 1907.]

A few words as to methods of the otologist will be pertinent. The first essentials to treatment are a nest of ear specula and a head mirror, with ability to use them, and some knowledge of what is seen in the fundus. Cleansing is accomplished either by mopping out the external auditory canal by means of cotton tipped applicators, or by irrigating with normal salt, weak bichloride or boric acid solution, used warm from a fountain syringe, the reservoir of which is slightly higher than the patient's head. As a nozzle, the glass tip of a dropper is satisfactory. The amount of solution will range from half a pint to two pints. To apply heat, raise the temperature of the irrigating fluid, and use more of it. Poultices are rarely permissible. The ear should always be dried with cotton after a watery application. Rules of surgical cleanliness apply.

A generally useful remedy for the aurist consists of carbolic acid one drachm, glycerin seven to nine drachms. This is antiseptic, anesthetic and osmotic. It is not caustic and does not become rancid. It is usually well borne when the epithelium of the external canal has not been macerated, although occasionally it will not be tolerated. It is used warm, filling the canal, and inserting a loose cotton pledget into it, which holds the solution in contact with the parts.

As a dry dressing, boric acid, or equal parts of boric acid and acetanilid are great favorites. They are blown into the ear after drying, and in sufficient quantity to whiten the tissues. Packing the canal with these powders is rarely advisable.

Keeping within the pale of the symposium*, the ear-pains to be considered will depend upon one or more of the following conditions:

1. Acute inflammations of the external auditory canal.

2. Acute inflammations of the ear-drum.

3. Acute inflammations of the middle ear.

Furuncle of the canal is often relieved by use of the carbolyzed glycerin if taken in the early stage; if pus have formed the treatment is operative.

Diffuse otitis externa is relieved by mild irrigations, drying the ear and insufflating boric acid. Occasionally instillations of saturated alcoholic solution of boric acid will be more effectual than the dry powder, and sometimes a very irritable canal will best be soothed by an ichthyol and zinc ointment dressing. If there be much swelling, cold will be a valuable agent at first.

Acute myringitis demands bed, a saline and the carbolyzed glycerin; or puncturing the blisters when they exist, drying the canal with cotton pledgets, and insufflating boric acid. An alkaline antiseptic wash to the nose and throat is usually essential.

Acute otitis media requires bed, a saline and proper care of the nose and throat. It is highly important that the ear drum be inspected daily. Be careful that dead epithelium on the membrane do not mislead the observer, for very frequently a fiery and bulging drum is obscured by this means. If the landmarks be not visible, uncover the drum by warm irrigations, which also have a tendency to relax the eustachean tube and thus drain the middle ear. The ear is dried and warm carbolyzed glycerin instilled, to be left in three hours, when the irrigation should be repeated. If the ear drum be bulging and relief be not obtained in twenty-four to forty-eight hours, or marked mastoid tenderness be noted, the treatment is operative and promptly so. In infants the treatment of acute otitis media is practically always operative.

Politzer states that operation on the ear drum is indicated in acute inflammation only "when with constant accumulation of secretion in the middle ear, the severe pains continue, with or without fever in spite of every local medication, and when the membrana tympani presents circumscribed, livid red protuberances, or a yellowish green discoloration at its most prominent part; also if there be vomiting, convulsions and delirium, or if there be pulsating pains, and in tenderness over the mastoid." (Diseases of the

Ear, Amer. Ed., p. 337.) I am sure that very few American otologists at the present time would allow their patients to suffer and take the chances of mastoiditis, thrombosis and brain abscess by waiting for Politzer's indications for operation.

THE SURGICAL TREATMENT OF EARACHE FROM THE STANDPOINT OF A SPECIALIST.

WADE THRASHER, M. D.,
Cincinnati.

[Read at Cedar Point meeting of the Ohio State Medical Association, August, 1907.]

The pathological conditions resulting in earache are so varied and many, and cover such a wide field, that in reviewing the subject assigned me, I will confine my remarks to the surgical treatment of external otitis follicularis, and acute otitis media purulenta.

There are several affections, other than of the middle ear and external canal, which might be mentioned as the exciting cause of earache, such as tonsillitis, peri-tonsillar abscess, retro-pharyngeal abscess, adenoids, cervical adenitis and even carious teeth, but it is not within the province of this paper to mention the surgical treatment of these conditions.

Beginning in the sound-conducting portion of the ear, one of the most frequent causes of earache is external otitis follicularis.

Although comparatively a simple condition, requiring very simple surgical interference, furunculosis of the external canal assumes clinical importance owing to the fact that it is so frequently mistaken for acute otitis media.

I have seen cases where the localized pain, febrile disturbance, swollen canal, induration over the mastoid region, with a marked protrusion of the auricles, would lead one at first glance to suspect acute otitis media with a mastoid involvement, but a careful examination of the canal and membrana tympani should clear up the diagnosis.

In furunculosis of the external canal we may have one or more foci of suppuration, and in the latter stage the swelling becomes more or less diffuse, and sometimes completely occludes the lumen of the canal.

An examination of the drum-head is of greatest diagnostic value, for instead of finding that membrane red, inflamed and bulging from confined intra-tympanic suppuration, as we have in

*Acute inflammation of the ear in which pain is the prominent symptom.

acute middle ear trouble, the drum-head is normal in color and position.

The treatment in the majority of cases should be surgical in character, and I agree with Grant, Kohler and others that the parts should be freely incised in the stage of exudation, instead of waiting for symptoms of either circumscribed or diffuse suppuration.

The escape of the sanguineous fluid will relieve and pain and tension and an early incision will facilitate the escape of pus when the stage of suppuration is reached.

The operation may be done under a local anesthetic, but I prefer nitrous-oxide-ether or nitrous-oxide alone, for it enable the operator to more thorough do his work, with no-appreciable increase of risk to the patient.

The canal should be syringed with a 1-3000 bichloride, or a lysol solution, and the auricle scrubbed with green soap and ether.

Bichloride gauze is inserted in the canal and removed at the time of operating.

If the pus is circumscribed, one short, deep incision is usually sufficient for drainage, but in the later stage, where the swelling is general, and after the pus has burrowed around between the cartilaginous canal and the periosteum of the bone, it is frequently advisable to make one or more extended incisions down to the periosteum.

In a recent case the pus burrowed anteriorly and posteriorly, forming a large abscess over the mastoid process and a smaller one in front of the tragus.

Both cavities were drained through a post-auricular opening.

After the sanguineous fluid or pus has been evacuated, the canal is again syringed with a lysol solution, and several drops of a boric acid and alcohol solution instilled, strips of sterile gauze inserted and a light dressing applied.

The parts should be dressed frequently for the first two or three days.

The most frequent as well as the most important cause of earache in the majority of cases is an acute inflammation of the middle ear. It is an infectious condition, usually caused by the invasion of pathogenic micro-organisms "per tubam."

The streptococci seem to be the most usual form of infection, although staphylococci and diplococci are frequently found in the secretion of the infected ear.

The hyperaemia and cell infiltration of the first stage is succeeded by an effusion, muco-purulent in character, which rapidly changes to a purulent discharge.

Surgical intervention is indicated as early as the latter part of the first stage, or where the pain is being intensified by the pressure of the serous exudate in the tympanic cavity.

The progress of this stage of inflammation can be detected by its effect on the membrana tympani, which at this stage will be slightly bulged and bright red in color.

The pain is probably more intense now than at any other time, except just before spontaneous rupture of the membrane, in the purulent stage of those cases that are allowed to run their natural course.

At this stage of the disease a simple paracentesis or puncture of the membrane is sometimes done, and frequently results in cessation of the pain due to pressure and establishes drainage, which favors a speedy cure without an extension of the pathologic process to the accessory cells.

The canal and membrane should be rendered sterile, and a speculum of the largest size used.

I use an ossiculestomy knife on a universal handle, so the cutting edge may be turned in any direction required.

Equal parts of cocaine, carbolic acid and menthol will act very nicely where a local anesthetic is used, but judging from my experience I prefer a general anesthetic, such as nitrous oxide.

The puncture is made at the point of greatest bulging, or, if the pressure is general in character, the postero-inferior segment is usually selected.

For several years it has been my custom to always do a myringotomy, even in the first stage of the trouble, instead of a paracentesis, because a free angular or semi-lunar incision relieves tension and facilitates drainage very much better than a mere puncture.

I puncture the membrane in the postero-inferior-quadrant and cut downwards and forward, following as near the periphery of the drumhead as possible. In making an incision of this character one is probably less liable to disturb the ossicles, enter the round window or injure the chorda-tympani nerve than in any other form of incision.

It is well to bear in mind that the relative position of the membrane is disturbed in nearly every case on account of the bulging being more prominent in the posterior-superior and inferior quadrants, and in the later or suppurative stage this will be associated with a sagging of the posterior-superior wall of the cartilaginous canal next to the tympanic ring.

On account of this condition I frequently, after incising the drumhead, make a longitudinal in-

cision in the posterior-superior portion of the cartilaginous canal, beginning at the tympanic ring and extending outward about an inch.

The resulting depletion of blood and sero-sanguineous fluid relieves tension and pain.

After the incision the evacuation of the purulent products in the tympanic cavity can be facilitated by thoroughly inflating the eustachian tube by the catheter method. I prefer the catheter to the Politzer method at this time. The canal should be syringed out several times daily with a lysol solution, followed by a few drops of alcohol-glycerine-boric acid solution.

I think the application of dry heat for a few days is of some value, because it favors suppuration and will help relieve pain.

Flushing out the tympanic cavity with a normal salt solution, using a Blake middle ear syringe, has been advised, but should not be done unless the incision of the membrane has been sufficiently free to allow perfect drainage.

The case will now undergo resolution and rapidly improve or will settle into a chronic otitis media purulenta, or will increase in severity and malignancy, with an invasion of the micro-organisms to the attic, antrum and mastoid cells.

If the latter course is pursued, and as soon as the symptoms justify it, drainage should be established by opening the antrum.

This operation, the simple antral or Schwartz operation, is so easy to perform, so free from risk to the patient, and the results so gratifying, that I never hesitate to advise it if the case does not show rapid improvement within a day or two after the myringotomy.

The Stake-Schwartz or radical type of operation is indicated in cases of chronic purulent otitis media.

In this operation you have to deal with pus, granulation tissue, necrotic bone, cholesteatomatous masses and sometimes polypi, and it is one of the most difficult and trying operations we are called upon to do.

The pendulum of mastoid surgery has swung from the crude, unsurgical Wilde incision to the most radical technique of the so-called complete modern mastoid operation, where we are advised as a matter of routine to remove the tip of the mastoid, the cortical portion of the mastoid overlying the sigmoid sinus and expose the posterior zygomatic cells, whether any or all of these structures be healthy or diseased.

One of our prominent otologists goes so far as to advise exposing the dura of the middle and posterior cranial fossæ as a matter of routine to eliminate any doubt as to the presence of a cir-

cumscribed pachymeningitis or extradural abscess.

I cannot agree with the gentlemen who advocate such radical technique as routine practice. The pathological features vary, and the conditions are different in each and every case, making each case a law unto itself, and I believe it is better surgery to make the technique suit the requirements of the case in hand rather than pursue the same technique in all classic mastoid operations.

The object of the simple antral operation is to relieve confirmed suppuration and restore the parts to a healthy condition by removing all necrotic bone.

I fail to see the wisdom in pursuing a cut and dried technique in all cases, which means the sacrifice of more or less healthy bone in a large per cent. of our cases.

I have rarely found it necessary to disturb the lower third of the mastoid process in the average acute case, especially in children, when allowed to operate in the early stage or a short time after antral invasion. There is also little reason to disturb the tip in those chronic cases where the cancellous structure has undergone a proliferative osteitis, and the cortex an eburnation.

For the sake of convenience the technique of the antral operation is divided into three stages—first, the procedure upon the soft parts, which consists of the primary incision through the soft parts and the periosteum, elevating the periosteum and clearing the field.

The second stage is devoted to the hard parts and consists of exposing and draining the antrum and removing all necrotic bone.

The third stage consists of cleaning the wound, packing the cavity and stitching the upper and lower portions of the retro-auricular opening. I would suggest making the primary incision with as much curve as possible. This will obviate the necessity of disturbing the periosteum posteriorly, and the entire field can be exposed by elevating the periosteum and soft parts anteriorly.

Whitting advocates a secondary incision, beginning at the center of the primary cut and extending posteriorly about an inch. My experience leads me to believe this unnecessary except in the exceptional case, and would not advise denuding such a large area of bone of periosteum unless absolutely necessary.

When beginning the attack on the bone in the supra-meatal triangle, especially in children or in those cases where the cortex is eburnated, you will lessen the danger of breaking down the posterior meatal wall by placing the chisel next to

the spine and making your first cut in a posterior direction.

The antrum, in the average case, is found slightly in front and above the cortical opening, at a depth of about three-quarters of an inch.

A cortical perforation of some portion of the mastoid process is frequently observed in the later stage of the acute case or in the chronic tubercular or luetic mastoid case. When this condition is found, there is a great temptation to begin the attack at this point and follow up suppurative ramifications in the pneumatic structure of the mastoid instead of pursuing the usual technique of exposing the antrum first.

As the antrum is quite an important landmark, I would advise the beginner or those of limited experience to always locate and expose this important cell first and then proceed according to the requirements of the case.

After the antrum is exposed, a liberal use of the probe is advised to determine its dimensions and the condition of its walls, especially the roof or the tegman antri, and posteriorly in the direction of the knee of the sigmoid groove.

The cortical opening is now enlarged quite liberally inferiorly, and moderately in a posterior and antero-superior direction.

The location of the tegman antri, as determined by the probe in the antrum, and the temporal ridge, will indicate how far it is safe to proceed superiorly without exposing the dura of the middle fossæ.

Great care is necessary in determining the extent of the infection in the mastoid process, especially in the Bezold type, where the infected area between the antrum and the lower portion of the mastoid process is limited to the deep petrous cells.

There is comparatively little danger of injuring the facial nerve in the average acute case, but in delayed cases, where the necrosis is extensive, great care should be exercised when using the curette on the floor of the antrum near the anterior border of the aditus and in the deep cellular structure of the mastoid process.

The location of the facial nerve is comparatively uniform in all cases, but occasionally, much to the surgeon's regret, one will be found occupying an anomalous position.

The course of the sigmoid groove will vary greatly, but usually the exposure of this great vein is looked upon with little apprehension, except in those cases where the parts are bathed in pus and the chances of infection are good.

Hemorrhage from the sinus, while spectacular and more or less disconcerting, is not a serious

menace to life, unless the condition of the wound is such as to favor infection.

When injured in the early stage, I think it the better part of valor to pack and wait for a few days before attempting to complete the operation.

The after treatment in the uncomplicated case is simple.

If the dura of the middle fossæ or the sigmoid sinus has not been exposed, I always syringe the cavity with a lysol or bichloride solution and then carefully pack.

One or two sutures in the upper and lower portion of the primary incision and an outer dressing complete the operation.

This dressing may remain untouched for four or five days, providing no symptoms of meningeal or general infection develop.

After the first dressing the cavity should receive a loose packing daily until the wound is completely closed, which it ought to do in four or five weeks.

In conclusion I would like to add a word about the instruments used in mastoid work.

The blade of the scalpel used in making the primary incision should be short and narrow.

I still cling to the old beak shaped periosteal knife to divide the periosteum, and favor the Langenbeck periosteotome, which is shaped like a hoe, to elevate the periosteum anteriorly.

The use of the chisel is limited to making the initial cortical opening large enough to receive the beak of a rongeur, after which we rely principally upon the use of rongeurs, gouges and curettes to complete the work on and in the bone.

I have found the self-retaining retractor of advantage, because the traction on the flaps is uniform, and it eliminates a pair of hands from the field.

Kernig's sign is a flexion contracture of the knee joint (hamstring muscles involved), which in the sitting posture cannot without violence be straightened beyond an angle of 135 degrees with the thigh, but can be readily straightened when the patient is in the erect or recumbent posture. The sign is of great value in cerebro-spinal fever.

Corrigan's pulse is characteristic of aortic insufficiency. Its receding character is due to the non-support of the great quantity of blood thrown out by the hypertrophied left ventricle, the aortic valves not closing perfectly and permitting regurgitation. It is regular in rhythm during compensation.

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THE COLUMBUS MEETING.

The sixty-third annual meeting of the State Association has passed into history as one of the largest and most successful meetings ever held by the organization. The only drawback was the certain amount of confusion resulting from the unexpected discovery of the difficulty of hearing the speakers in the main auditorium of the Memorial Hall, owing to its size and the unpleasant echo from the empty gallery, necessitating an entire change of plans for the general meetings and the House of Delegates.

In the main, the visitors accepted the situation philosophically and kindly realizing that the local committee had gone to great pains to make satisfactory arrangements, and the above mentioned complication was a most unforeseen one.

The various sections were all exceptionally well attended; the papers were excellent and the discussions indulged in bespoke the interest aroused.

The special addresses were all extremely interesting, and will be published

in full in the Journal during the next few months.

The president's address, printed in this number, draws attention to many important questions of the day and its earnest and careful perusal is urged upon all members of this Association.

The annual banquet was, we believe, a gastronomic and social success. It was a decided innovation and each guest seemed to feel that it was intended as a few hours relaxation rather than a formal function, and entered heartily into the spirit of the occasion.

Special mention should be made of the souvenir badges, as the handsomest that we remember to have seen used for such occasions. The design is really an extremely artistic one, and we would suggest its adoption as the official emblem of the State Association.

The total registration was 675, but owing to the change in meeting place for the general session on Thursday, we feel confident that the actual attendance may be conservatively estimated as 800, at least.

The local profession of Columbus exerted its best efforts to make the meeting a success, and the Association appreciated the warm welcome extended and the services rendered.

THE THERMAL DEATH POINT OF PATHOGENIC MICROORGAN- ISMS IN MILK.

As a supplement to that most valuable and instructive publication from the Hygienic Laboratory of the Public Health and Marine Hospital Service (Bulletin No. 41, Milk and its Relation to Public Health) comes a report by the director of the laboratory, M. J. Rosenau (Bulletin No. 42, The Thermal Death Points of Pathogenic Microorganisms in Milk) detailing the results of an extensive series of experiments to determine, so far as the artificial conditions of the laboratory permit, the degree at which several of the most important pathogenic bacteria can be devitalized without producing serious thermic alterations in the milk. In a measure this investigation is a critical review of previous published results, for of course, this problem with its immense hygienic significance has long engaged the attention of bacteriologists. The discrepancies which encumber much of this earlier work is shown to be consequent upon variations in technic, although in the case of at least one microbe—that of tuberculosis—a mistaken interpretation of the phenomena is shown to be responsible for the divergent results.

Carefully endeavoring to escape the technical errors of his predecessors and proceeding with that painstaking and patiently laborious exactness that has characterized other studies from the hygienic laboratory, Rosenau reaches conclusions that must come as a comfort to all of us for whom the problem of non-pathogenic milk is immeasurably important. For it is shown that as concerns the microbes

of typhoid fever, diphtheria, cholera, dysentery and Malta fever, they are killed by heating and maintaining the milk at 60 degrees C. for a period of less than a minute to ten minutes; and justifying the dictum, "Milk heated to 60 degrees C. and maintained at that temperature for twenty minutes may, therefore, be considered safe so far as conveying infection with the micro-organisms tested is concerned." In other words, a temperature of a degree and duration insufficient to produce serious heat changes in the composition of milk will assuredly render the fluid incapable of transmitting the diseases enumerated, even though it be heavily infected with the specific bacteria of these diseases.

Happily, too, the bacillus of tuberculosis when present in milk in numbers far exceeding those likely to be encountered under natural conditions, can be effectually destroyed at a temperature of 60 degrees C. for a period of twenty minutes. This reassuring information must be accepted in the face of a considerable amount of evidence to the contrary, for Rosenau shows that previous experimenters have frequently fallen into the error of overlooking the tubercle-producing power of the dead tubercle bacillus, it being necessary, as laboratory workers know, to test for tubercle bacillus by means of animal inoculations. Tubercle formation following the dispersal of dead tubercle bacilli injected into the peritoneal cavity of guinea pigs is localized, non-progressive and non-fatal, though anatomically identical with the affection caused by the living bacilli, and likewise similar in that it predisposes the animal to a fatal reaction with the tuberculin test. But when the ingenious method of "secondary inoculation" is resorted to, in which the infected tissue-substance of the originally-diseased animal is inoculated into a healthy one, all doubt as to

the vitality of the tubercle bacillus can be settled, for the lesions of dead tubercle bacilli are incapable of infecting on a secondary implantation.

MILK INFECTION.

The approach of warm weather should admonish every general practitioner to begin a campaign of education among his clientele in regard to the care of cow's milk intended for food, especially the food of young children. There can be no doubt but that the terrible infant mortality of the past, especially from the summer infections, can be greatly reduced in the future by the intelligent management of this predominant food of childhood. Not only will the death rate be reduced but the number of children who recover from these infections only to become life-long sufferers from impaired digestive and nictabolic powers will be lessened.

The fact that much of the milk—one-third, according to reliable authority—used contains tubercle bacilli makes this question more serious. There is much to sustain the opinion of Knopf and of Von Behring that a high percentage of those who first show signs of tuberculosis during adolescence have contracted their infection during infancy or early childhood. The healthy infant is probably able to protect himself from such an infection, but with an inflamed intestinal mucosa infection would be easy.

A few general principles can be laid

down concerning the care of milk intended for child-feeding which ought to be impressed on the minds of those having the care of the children: Milk is a rich culture medium for both pathogenic and putrefactive germs which multiply in it with great rapidity at a warm temperature. The two main points therefore are to protect the milk from infection and to keep the milk at a low temperature—below 50 degrees F. The chief source of infection is the dried feces from the udder and surrounding parts of the cow. This can be guarded against by cleanliness in milking. When dairy milk must be used, unless the dairy is certified and means are at hand for keeping the milk cool, the only safe way is to pasteurize the milk at a temperature of not less than 140 degrees F., nor more than 150 degrees, for thirty minutes. This kills the microbes present without impairing the digestive enzymes of the milk.

As far as possible those having the care of infants should be instructed as to the management of digestive disturbances as soon as they appear. Total cessation of feeding for twenty-four to forty-eight hours with evacuation of gastro-intestinal tract and correction of the diet error would save many lives and much sickness.

All physicians should lend their support to the efforts being made throughout the country to secure a pure milk supply. No one reform is potential of so much physical welfare as this.

THE 1908 MEETING AT COLUMBUS

The sixty-third annual meeting of the Ohio State Medical Association was called to order in Memorial Hall, Columbus, on Wednesday morning, May 6, at 10 o'clock, by President Chas. L. Bonifield.

On behalf of the Columbus Academy of Medicine, Wells Teachnor, president, delivered the following address of welcome:

Mr. President and Fellow Members of the Ohio State Medical Association:

It gives me infinite pleasure to have the honor of being selected to say a few words of greeting to you in behalf of the physicians of Columbus and Franklin county and to extend to all the members of this association a most cordial welcome to the capital city and its hospitality.

Until recently any of the medium sized cities of the state could accommodate and entertain this body. In my own recollection the attendance of 250 members was considered a very large meeting. The growth has been so remarkably rapid the past few years, going from 650 in 1902 to approximately 4000 in 1908, that the entertainment must necessarily fall to the lot of the largest cities of the state. We, as citizens and physicians of Columbus, feel justly proud that we **can be placed in the category of cities that can accommodate the various sections of this great organization.** We take pride in the number and equipment of our hospitals, the advantages of which many of you are already familiar. Mt. Carmel has just completed a very expensive addition, increasing its capacity approximately 100 beds. Grant is contemplating doubling its capacity. The Protestant, St. Anthony and St. Francis, all large hospitals, give us a prestige and establish the capital city of Ohio as one of the chief medical centers of this country.

We can boast of more public institutions in our vicinity than in any other city of the state. Many of them are presided over by members of our profession and organization, all administering to the welfare of unfortunate humanity. They are all objects of interest as well as instruction to the visiting physician. I take the liberty of extending to you the courtesy of all these institutions, both public and private.

The objects of our organization are not alone to meet and relax from the many arduous professional duties, but to discuss and exchange views on medical subjects, to aid in the acquisition of knowledge and to increase the interest in medical research and to secure harmonious re-

lation between all interests seeking for the advancement of medical science and public health, both in our state and nation.

Any physician residing within the limits of our state who has complied with the medical statute and constitution of the Ohio State Medical Association of the state is eligible and welcome to our ranks. The results of medical organization are manifested in the past by abatement of the fearful scourges of cholera, smallpox and malaria, and has made possible the construction of the great Panama canal through the worst polluted country in the world, a feat of incalculable commercial value to this country. May God speed the day when our efforts shall be crowned with the successful eradication of tuberculosis, which is sure to come. Most measures have been brought about by the influence of medical organization and legislation. We should now carry our warfare against the frauds that are perpetrated against the public. To accomplish this the people need education in medical matters, fallacies, fads and erroneous advertisements appealing to their imaginations and credulity should be thoroughly explained by written messages from the pens of our most influential members. The work so gallantly carried out a few years ago by Collier's Weekly should be continued by the medical profession. This association should establish a literary bureau for the distribution of literature to the laity. The physician will then have placed in his hands a suitable weapon to combat the deceptive imputations of the charlatan and walking delegate whose business it is to disseminate the literature of some special cult. To give an example of what should be done, a physician of central Ohio wrote an article recently entitled "The Fallacy of Osteopathy," giving concrete reports of a large number of cases proving the fallacy of their methods of diagnosis and treatment absolutely. This paper was prepared and read before a medical society and published in a medical journal, where no one other than a physician could read it. The paper was of absolutely no value whatever to the physician. We all know that osteopathy is a fallacy, but this paper could be made of incalculable value if properly distributed. A million copies of this paper should have been distributed to the people of Ohio in pamphlet form. The prominent patent medicines, the vicious and suggestive advertisements of the fakir should be taken up and answered. They are permitted to go on exhorting their flaming deceptions unhindered, soon

retiring to live a life of luxury. The poor physician can only sit idly by. He has no weapon but his word of honor to his patients with which to combat this evil, and his word is seldom considered against attractive advertising. It is a duty this organization owes to its members to furnish them with proper evidence in a form that can be distributed to their clientele. There is a demand from the laity for such evidence, as shown by the philanthropic layman who undertook the task of distribution of the "great American fraud" reprints, his first order being for 1000 copies, which was quickly followed by successive ones, until now his distribution has reached more than 30,000 copies. If a layman can afford to spend his retiring days in such valuable work, is the time not propitious for organized medicine to at least sit up and take notice?

The organization of a proper bureau or committee from this association could find many channels for distribution of such literature other than through the medical practitioner himself. The Women's Christian Temperance Union has awakened to the fact that all patent medicines contain a large per cent. of alcohol and would gladly work in harmony, as they have already done in such matters.

The different secret organizations of this state could be called upon, no doubt, for beneficial action in such a cause. Both public and private libraries should be furnished with a large stock of pamphlets for distribution to their patrons. No doubt the various religious denominations would lend a helping hand to such a worthy cause. The question of lack of available funds should not enter into consideration, as the cost of distribution could be made a very small matter. A few years ago this organization established and has since published a medical journal, which has risen to prominence among the medical publications of this country. Its continued prosperity is assured. It will be but a short time until this journal will need a permanent home for economic reasons and a modern printing equipment suitable for such a publication. Here tons of such literature could be printed and distributed at a very trifling cost to the association. In the campaign of 1896 it seemed that the great question of free silver, whether right or wrong, would carry the sentiment of this nation overwhelmingly. What did the two great political parties do? They organized literary bureaus and began the distribution of many tons of literature for the education of the people. The far-reaching effects of such a distribution as I have described could not

be estimated in the elimination of the vicious and atrocious methods of the charlatan and fadist, to say nothing of the benefit to the public. In this way, by keeping faith with the people, we could soon accomplish much more in the legislative affairs of our state and nation. Appeals to the ordinary legislator accomplish but little after he has once been elevated to that great hall of fame. We should see to it that he is properly educated before coming to the Legislature.

While we need legislation badly, I do not think we can afford to sacrifice our dignity to obtain it. We must keep faith with the people. We should not advertise ourselves as a medical trust by gratifying the political ambitions of members of our organization. Such incidents only jeopardize the good effect we may receive from the proper education.

It seems from the program that this meeting will be the largest and most profitable in our history. It is a singular fact that this should occur within such a short distance from where the association was organized some sixty-three years ago. We hope that you may find it convenient to hold many more meetings in our city.

As president of the Columbus Academy of Medicine I only desire to say that as you journey homeward you will depart from us with the feeling that on the next invitation you will be ready to respond. I assure you we are always glad to be your host.

PRESIDENT'S ADDRESS.

In response, the president, Charles L. Bonfield, spoke as follows:

Custom as well as our constitution requires that your presiding officer deliver an address. We have secured a very distinguished surgeon from New York to deliver an address in surgery, an internist with a deservedly high reputation, both as a practitioner and an author; one of our own members to deliver an address in medicine, our programs for the general sections and for the section meetings are crowded with scientific papers, and it therefore seems best that I use the brief time at my disposal to discuss some of the questions that interest us as an organization rather than as individual practitioners. But first I wish to again thank the association for the great honor they conferred on me last year in electing me president. I appreciate this honor more than I can tell you and realize that it was the generosity of my friends rather than my own merit that elevated me to this high position. In accepting this office I promised to fill it to the best of my ability. In this day and age the president of the State Medical Association

must not only assist in making the annual meeting a success and preside over its sessions, but must use the prestige which his office gives him in furthering the interests of the association and the medical profession of the state in every possible way during his entire term of office. How well I have performed this last function I leave you to judge, but ask you to believe me when I say that I did the best I could in the limited time at my disposal. My term was eight months instead of twelve, and during seven of these months a teaching position which I occupy required my presence in the classroom two and sometimes three days a week. This prevented my attending the meetings of as many county and district societies as I should have liked to have attended. I did visit eight counties and three district meetings. At each place I met a warm welcome and the most courteous treatment from officers and members. Most county societies were found to be flourishing, but a few needed encouragement and help. In the next few years the county societies will be passing through a critical period of their existence. The enthusiasm of youth will have subsided, the novelty of existence will be gone, and, in the parlance of the stage, organization must "make good" if it would survive. It would seem wise to increase the number of councilor districts, or at least change the boundaries of some of them, and shorten the term of office. The work of the councilor is most arduous, and no practitioner can afford year after year to give the time required for the faithful performance of the duties of this office. No man can be persona grata to every other man in eight or ten counties, and it necessarily follows that after a longer or shorter time his usefulness ceases. I am speaking of the future, not of the past. No state association has had a better group of councilors than Ohio. Our association is what it is because of their work. They have brought order out of chaos and made organization a reality. I regret to say that the county of Hocking still has no society.

When the House of Delegates adjourned last August it was subject to the call of the president. So many bills were introduced into the Legislature that were of interest to the medical profession that I thought it best to have them considered by the House of Delegates. I therefore summoned this body to meet in Columbus January 21. They held a joint meeting with the Committee on Public Policy and Legislation. The various bills pending were discussed, and by vote it was decided which ones to support and which ones to oppose. This called meeting was necessarily an experiment. Future officers of the

association can profit by our experience and make another meeting of this kind more valuable. The bills were so numerous and the time for their consideration so short that it was impossible to give each the attention it deserved. Had each member of the House of Delegates been given a copy or at least a synopsis of each bill some days before the meeting, and had each bill been duly digested by a sub-committee composed of two or three members of the Committee on Public Policy and Legislation, members of the House of Delegates could have voted more understandingly. While we cannot help being disappointed that some bills, such as that creating a health officer for each county and that prohibiting indecent medical advertising, failed to pass, we can congratulate ourselves that some very harmful bills met the same fate. The passage of the bill to prevent the feeding of distillery slop to dairy cows was a distinct victory for the medical profession and a great blessing to the children of at least one city in the state. This bill was introduced at the instigation of the milk commission appointed by the Cincinnati Academy of Medicine, consisting of Dr. Otto Geier, Albert Friedlander and Woodward, and their tireless efforts in this behalf had much to do with its passage. My appeal to the various county societies to help us secure this legislation was not in vain, and I desire to thank publicly the officers and members of the societies who gave us their much needed assistance, especially S. P. Kramer and S. E. Allen.

One of the reasons that it is so hard for the profession to secure needed legislation of this kind, legislation in which the profession has no interest other than that prompted by the humane desire to help those incapable of helping themselves, is that the legislators are so constantly importuned by individuals and lobbies to pass measures in the selfish interest of corporations or groups of citizens that they cannot believe in the unselfishness of physicians and therefore suspect the measure favored by them must contain some "sleeper" that will benefit them. There are two ways to partially overcome this distrust. One is to occasionally secure the attendance of legislators and other public men at the meetings of medical societies when matters of public health are to be discussed. The other is for more medical men to be elected to the state and national legislative bodies. It is to be regretted that so few medical men have the opportunity and the inclination to serve their fellow citizens as legislators. Their services would certainly be valuable. Medicine is a jealous mistress and demands and secures the undivided attention of

her votaries. Few obtain a sufficient competence in practice to be able to lay it aside for duties of state with the meagre salary allowed for such services. It has also been taught and believed that politics are so corrupt that an honest man must leave it alone lest he become contaminated. Many physicians are afraid to express their opinions on politics—some almost afraid to vote—for fear of offending some of their clientele. Physicians owe it to themselves and their families to provide for the time when their capacity for work is limited by the infirmities of advancing years, and financial reasons must continue to keep at home many physicians who would adorn the halls of Congress. The other reasons for doctors avoiding politics are more fancied than real. The more corrupt politics is the more it needs the haven of good men. Most men and women want for their medical adviser a man with strong and positive character. I for one would abandon my profession today if to follow it prevented my speaking my mind privately or publicly on any question of the times. Doctors are citizens as well as doctors, and it is only by the exercise of the duties and privileges of citizenship to the fullest extent by every educated citizen that this republic can continue and experiment of universal suffrage and at the same time maintain its present proud position among the great nations of the earth. But if there are many reasons why doctors as individuals should participate in politics, there is every reason why their organizations should have nothing to do with it. It is to be remembered that the primary object of medical societies is to enhance the scientific attainments of their members. When a physician is desirous of securing an office at the hands of the voters of the commonwealth, he should merit it by his previous interest in public affairs and strive to attain it through the instrumentality of the political party with which he is affiliated. When a public officer has been flagrantly unjust to the profession, it is not only the privilege but the duty of the society to express its disapproval of him. The supplying of a better man to take his place is the work of the two dominant political parties.

No other laws of the state are of so much importance to the profession as those which define the qualifications necessary for practicing medicine and surgery within its boundaries. The state owes it to its citizens to protect them from ignorant doctors, who may not only sacrifice the lives of the credulous by whom they are employed, but by their failure to recognize infectious disease permit its being carried to other residents of the community. It is to the credit of the medical

profession that most laws of this character have been proposed by the profession itself. Our state, like many others, has thought it advisable to not entrust the examination of applicants for registration to the schools in which they have been educated, but to employ a special board to examine them. It is to be hoped that this board will always be mindful of the fact that it owes its existence to the medical profession and that the only reason for its being is to secure the impartial enforcement of the law. That the laws as they are now enforced in the various states are entirely satisfactory I think few will contend. It is ridiculous when a man has attained such distinction in one state that an institution for teaching medicine in another state calls him to professorship, that he must be examined by a state board, no member of whom in all probability is as well qualified as himself, before he can practice. There should be some board some place whose certificate would be recognized wherever the stars and stripes are recognized as the national emblem. If the various state boards would agree among themselves to accept its certificate, a board of five members might be formed by the American Medical Association appointing two members and the medical department of the army and the medical department of the navy and the marine service each one. Such a board could meet in Washington in June. Many recent graduates would be glad to appear before it for examination to qualify themselves for practice in any part of the Union that they might at any time care to go (while they are better prepared to pass the primary branches than they ever will be again). Such a certificate would also be regarded as a badge of distinction by the profession. That the state laws for examination and registration raised the educational standard for the entrance into the medical colleges as well as graduation cannot be doubted, but we may be permitted to ask if there is not danger in pushing this matter too far. The higher the price of admission to the circus the more boys will be compelled to crawl under the canvas. The more difficult it is made to get in the regular medical profession the more men will take up osteopathy or some other worthless method of healing. Is it to be supposed that a man will take a university degree, attend medical college four years, serve a year as an interne in a hospital, take another year's study in the medical centers of Europe, and then locate in some rural community where the largest gross income he can ever obtain from practice will be \$2000 a year? But these communities need their medical attendants. In the past they have had them. They have been

the "Weelum McClures" of the profession and an honor to it. Is it not better to continue to supply them with men of moderate attainments belonging to the regular school than to force them to employ practitioners who know nothing of the science of medicine. If the time comes when only a rich man's son can enter the profession, it will lose many men that would have fought well in the ranks, even though their chance of promotion to leadership had been exceedingly small.

The months that have elapsed since our last meeting have witnessed the publication of no epoch making discovery in the etiology, pathology or treatment of disease, but we are not to infer from this fact that the wheels of medical progress have for the time being been arrested. All such discoveries are preceded by weeks and months of patient investigation by those endowed by nature and equipped by training for such work and has been carried on with unabated enthusiasm both in the laboratory and the sickroom, and results will inevitably come sooner or later. It is from the laboratory that future advances are to be expected, for medicine and surgery have both progressed as far as the mere clinician can carry them. It is as important for the government to train men to protect its citizens from microscopic foes as from those that might visit our shores in the modern armor clad men-of-war. If Congress would appropriate each year a sum equal to the cost of one battleship for the founding and maintenance of a school for teaching the teachers of medicine, it would save the lives and property of its citizens as surely as it does by training officers for the army at West Point and for the navy at Annapolis. An illustration of the truth of this statement are the beneficial results of the discovery of the means by which yellow fever was carried to our shores.

There has probably never been a time in the history of medicine when the average practitioner's ability compared so favorably with that of the leaders of the profession as it does now. The county medical society stimulates his thirst for knowledge and furnishes a course of post-graduate instruction. It is by the average man that the profession is judged, and it is therefore a duty that every man distinguished in his profession owes to it to contribute his share to the proceedings of the county societies of the state.

PROCEEDINGS OF THE HOUSE OF DELEGATES.

The House of Delegates of the Ohio State Medical Association was called to order by the

president, Charles L. Bonifield, of Cincinnati, at 11 a. m., Wednesday, May 6, 1908.

The secretary, J. H. J. Upham, called the roll, thirty-nine delegates responding. Of the councilors, all were present excepting those from the Fourth and Fifth districts.

The minutes of the previous meeting having been published in *THE JOURNAL*, on motion, duly supported, the reading of the same was dispensed with.

The treasurer having asked for instructions in regard to the disbursement of the special legislative fund, Dr. Brand, of Toledo, offered the following resolution:

Any money appropriated, collected for or assessed for public policy and legislative work shall be disbursed at the discretion of the chairman of the committee. It shall be deposited as a special account with the treasurer, and all vouchers against it must be countersigned by the chairman of the committee and the secretary of the association.

The resolution was seconded and adopted.

The following were nominated to act as a nominating committee:

First District.—J. O. Wickerham.

Second District.—J. E. Monger.

Third District.—F. D. Bain.

Fourth District.—W. W. Brand.

Fifth District.—H. G. Sherman.

Sixth District.—F. W. Gavin.

Seventh District.—W. E. Morris.

Eighth District.—B. F. Barnes.

Ninth District.—E. B. Morrison.

Tenth District.—G. O. Beery.

On motion, duly supported, the rules were suspended and the secretary instructed to cast the ballot for the nominees.

Dr. Brand offered the following resolutions:

WHEREAS, The questions of hygiene and sanitary science are each year increasing in importance and are occupying more and more the attention of the medical profession, and

WHEREAS, The number of papers upon the subject of hygiene and sanitary science presented before the state society are increasing in number, and

WHEREAS, It will be of benefit to the state and the medical profession of Ohio to make a special provision for the presentation of papers upon these subjects; be it

Resolved, That the House of Delegates create a section on hygiene and sanitary science, to meet annually during the regular session of the State Association; and in order to facilitate the organization of such a section, be it further

Resolved, That the committee on nominations be instructed to appoint temporary officers for this section.

After some discussion as to whether this resolution should properly come before this body, S. P. Kramer moved that it be referred to the council for report. The motion was seconded and on a rising vote carried by 18 to 16.

M. I. Marsh, of Greene, offered the following amendment:

Chap. VI, Sec. V. The president shall take his seat at the second annual meeting from the date of his election and in the interim be known as the president-elect.

Chap. VII, Sec. 1, Paragraph 2. The president-elect shall familiarize himself with the duties of the office of president; he shall be an honored guest at all meetings and shall assist the president in visiting the various sections of the State and aid the councilors in building up the county societies.

Chap. IX, Standing Committees. The chairmen of the standing committees, and the members of the National Legislative Council shall be ex-officio members of the House of Delegates.

T. Clarke Miller moved that a committee of three be appointed by the chair, to whom all amendments shall be referred without discussion, and who shall report at a future meeting.

The motion was seconded, and carried, and the following committee was appointed by the chair:

- C. E. Ford, Cleveland.
- N. W. Brown, Toledo.

J. A. Thompson, Cincinnati.

E. B. Morrison presented the following:

Resolved, That the Association of Assistant Physicians of the Ohio State Hospitals in semi-annual session at Gallipolis State Hospital, April 1 and 2, 1908, expresses to the Ohio State Medical Association its recognition of a need of the section on mental and nervous diseases in the State Association, and requests that provision for such a section be made, and promises that the members of this Association of Assistant Physicians will identify themselves actively with such. Be it further

Resolved, That E. B. Morrison, of the House of Delegates, be requested to present this appeal to the Ohio State Medical Association at the meeting in Columbus, Ohio, in May, 1908.

It was moved by W. H. Begg, duly seconded, that this resolution be adopted. After some discussion the motion was carried.

Dr. Brand moved that the formation of new sections be referred to the councilors for action at the pleasure of the House of Delegates. The motion was seconded and carried.

TREASURER'S REPORT.

(Synopsis.)

J. A. Duncan then read the Treasurer's report, showing

Balance on hand Jan. 7, 1907.	\$ 942 32
Advertisers	3068 15
Dues	3765 00
Subscriptions	12 05
	<hr/>
	\$7787 97
Disbursements	7633 59

Balance on hand, Jan. 1, 1908.	\$ 154 38
Public Policy and Legislation—	
Receipts	\$963 00
Disbursements	310 20

Balance on hand..... \$652 80

On motion, duly supported, the Treasurer's report was ordered received and filed.

J. W. Clemmer reported for the Committee on Public Policy and Legislation.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

The State Committee on Public Policy and Legislation herewith tenders its report of the work accomplished during the year.

At a meeting of the Joint Committee in January many proposed laws were discussed. Some of these were approved and others were condemned. In this way the Auxiliary Committee became familiar with the work. The results attained during the session of the General Assembly are due in large part to the efforts of the auxiliarmen with their respective legislators in the quiet of home life.

The medical and sanitary laws enacted, in number, character and importance exceed those of any other Legislature. The importance of the West bill creating a bureau of vital statistics can not at this time be fully appreciated. The value of this law will be more manifest in succeeding years. The enactment of the pure food and drug bill is another grand achievement in the sanitary welfare of the people. A noteworthy episode in relation to this enactment is the fact that Mr. Chaney, the veteran patent medicine proprietor, was the first man to speak in committee in favor of the bill, although he has spent a lifetime in visiting various State Legislatures and various State newspaper associations to fight the same kind of enactments. The enactment of the Federal pure food and drug law, and the awakening of the public conscience, brought the patent medicine crowd to the last ditch before the Ohio Legislature. With all of the cunning of a Fagan in his last stand before the Senate Committee,

Mr. Chaney, while complimenting the Senate upon the best law within his wide observation, attempted to secure the elimination of the term "coined words" from the bill in order to perpetuate deception upon the people.

The Deputy County Health Officer bill seems to have been killed in committee. All efforts to advance it failed. Political machinery and increased taxes were the claims against the bill.

The bill to maintain the independent system of health boards, as provided in the code laws, before amended so as to give city councils authority to abolish these boards also died in committee. Repeated efforts failed to promote this measure.

The new law affecting municipal authority and government leaves the organization of health boards as at present constituted, excepting that it comes under the provisions of the civil service rules.

Another gathering of newspaper men, physicians, representatives of woman's federated clubs, advertising quacks and the Chaney aggregation, in a hearing before a House Committee, on the Griswell Advertising bill agreed upon an amended bill. Representative Bassett of Lucas County acted as attorney for the quacks. In the face of the agreement he abused the medical profession and belied the efforts of your committee. To break this agreement, he offered and had adopted on the floor of the House an amendment which entailed, as intended, the opposition of the newspaper proprietors which defeated the bill in the Senate. Senator Matter of Summit County deserves gratitude for special effort in favor of this bill. Dr. Harper, Representative from the same county, aided, in the Senate, to defeat this bill. Mr. Bassett's conduct in this matter is not only unbecoming as a statesman, but is especially offensive to the medical profession.

The Elson Non-Medical Healing bill measured the strength of professional enmity and the medical cults. Mr. Corlett of the Cleveland delegation was especially active in his tirade against physicians. In debate, on the floor of the House, he cried out "There are no competent physicians." The Elson bill come to a vote in the House. Fifty to thirty-one votes defeated the measure.

The Opticians' bill would have passed but for the plea made for postponement in order to give necessary time for mature consideration.

The Nurse's bill providing for a State Board and otherwise encroaching upon the functions of the medical practice act was not encouraged by the Auxiliary Committee.

Three bills looking toward the burial of the

bodies of convicts and paupers, unclaimed by friends, were defeated in committee.

H. B. No. 1112, to regulate itinerant vending of medicines, nostrums and appliances, was recalled, for the reason that its defeat was foreshadowed.

In accord with a resolution of the Joint Committee and in response to a special committee, waiting upon Governor Harris, respecting the appointment of physicians to boards of trustees of State benevolent institutions, his excellency replied that he approved of this service. A list of appointments to meet the demand of the near future had been made. Aside from this, he would make no appointments according to the suggestions of the State Medical Association.

The following bills were enacted at the last session of the General Assembly.

(1) H. B. 748—To regulate the establishment, maintenance and inspection of maternity boarding houses and lying-in hospitals.

(2) H. B. 699—To authorize the State Board of Health to require purification of sewage and public water supplies and to protect streams against pollution.

(3) H. B. 745—To provide for county hospitals for the care and treatment of inmates of county infirmaries and other residents of the county suffering from tuberculosis.

(4) To enable municipal corporations to regulate the use, control and maintenance of buildings used for purposes of human occupancy or habitation.

(5) S. B. 414. To provide against the misbranding and adulteration of foods and drugs.

(6) S. B. 467—To establish a bureau of vital statistics and to provide for the prompt and permanent registration of all births and deaths occurring in the State.

(7) H. B. 1134—To restrict the selling or giving away of cocaine.

(8) S. B. 359—To prohibit the feeding of distillery slops to dairy cattle.

(9) H. B. 964—To provide Pasteur treatment for rabies produced by a cat, the same as provided for rabies produced by a dog.

(10) To provide for detention county hospitals for suspected insane.

(11) S. B. 496—To provide for the construction and maintenance of a public comfort station in the State House Grounds.

(12) H. B. 1268—To revise and consolidate the laws relating to the appointment, powers and duties of the State Board of Health, the State Board of Medical Registration and Examination, the Ohio Board of Pharmacy and State Board of Embalming Examiners.

(13) S. J. R. No. 57—A petition to Congress asking for the establishment of a National Bureau of Health.

(14) H. B. 1242—Providing for county hospitals.

A summary shows fourteen desirable bills enacted and six undesirable bills defeated. No undesirable bill was enacted. In other words, of the twenty good measures, fourteen were enacted. Of the six bad bills, none were enacted.

The foregoing constitutes a report of routine legislative work. What follows is endorsed by the entire State Committee. It relates to medical practice legislation, concerning which the profession is not sufficiently interested or informed. Medical practice regulation is synonymous with State medicine and professional organization. The profession must be better prepared to solve this problem before legislative committees than it was last winter or go down to defeat before cults and fads of the day.

The opticians' bill, the nurses' bill, and the non-medical healing bill, before the last Legislature serve to call attention to the importance of medical practice legislation. These bills proposed State examining and licensing boards. Their provisions encroached upon the function and standards of the medical practice act. The interest and perplexities attaching to this class of legislation have caused your committee and others who became interested in the subject on the part of the profession to regard it as deserving and demanding careful consideration. A comprehensive study of medical practice problems, to meet new conditions, is imperative.

The State Medical Board and the State Committee on Public Policy and Legislation, united in a statement before the Senate Committee to which was referred the optometry bill, in effect, that the medical profession of Ohio required time for deliberation in order to work out a proposition that will best conserve the interests of all concerned. The bill did not pass.

For two years physicians and nurses, under a special committee of the State and Auxiliary Committees, have considered legislation for the profession of nursing, with the result of disagreement and postponement. The Cleveland Chamber of Commerce thereupon attempted to harmonize the two professions, in this matter, and to protect the public against certain abuses, by presenting Senate Bill No. 474. The bill was not enacted.

The general consensus of opinion of the medical public seems to rest in opposition to the nurses' bill and the optometry bill, for the reason of their encroachment upon the principles

of medical practice regulation. The fact remains that the interests of the nurses and opticians and the general public must be considered and harmonized, in some action to meet the demand for legislative enactment on these subjects.

Medical practice regulation, in like manner, is involved in the pressing demands upon every General Assembly for medical cult enactments, typified by the Elson bill, to create a State board of examination and registration for "non-medical healing." The tendency is to controvert the medical standards established by the State as expressed in the medical practice act. This is true of the three bills mentioned. These standards were compromised when the Osteopaths were admitted to legal practice on a "limited license."

Remembering that all legislation is primarily in the interest of the public and at the behest of the people, medical legislation will follow popular demand. Hundreds of drugless practitioners and thousands of followers, in Ohio, are made to stultify themselves under operations of the medical practice act. They will continue to seek relief at the hands of the representatives of the people. Medical cults are knocking at the door of State recognition with more persistence and more popular favor every year.

The passage of the Ohio pure food and drugs act has compassed the defeat of Mr. Chaney, President of the Proprietary Medicine Manufacturers of America. It has also engendered the medical enmity of trade interests, aside from patent medicines, as represented by the manufacturers of blended whisky and food stuffs. Mr. Chaney proposes (and his actions are on record) to unite these forces with all classes of non-medical healers to so amend the medical practice act as to admit all practitioners to equal recognition by the State. Whatever modification may come of this forecast, the fact remains that many men and many classes are working from year to year to break down the barriers of medical practice legislation.

The healers worked like beavers, during the last few sessions of the General Assembly, carrying evidence of cured cases to willing ears of legislators, some of whom added the testimony of personal experience. The combined influences now at work to disrupt medical practice regulation will succeed in the near future unless the atmosphere in legislative halls belie the prophecy. Be this as it may, this report aims to present the situation as it is and to offer suggestions for your consideration.

As a working hypothesis it is submitted that the medical and sanitary interests of the public

are identical with the cardinal principles of medical organization. Without such organization the medical profession could not and should not exist. The people need medical practice protection the same as water and food protection or fire and police protection. It is well known that the ignorance and pertinacity of people require official supervision to protect them from their own destruction through unsanitary conditions, and to protect them from the medicine faker and charlatan.

The special knowledge of physicians concerning these matters imposes a public duty which medical organization assumes. In order to perform this duty toward the public the State has created a Board of Health to preside over public health interests, and a Medical Board to regulate medical practice. It is evident that public policy and professional policy coincide in motives and activities to serve the public good.

The only relation of the State to the medical profession is based upon medical laws to secure qualified service in public affairs and for the public health defense. It is only reasonable, therefore, that the medical standards of this State, reflected in the medical practice act, should correspond to those of the medical profession. This is necessary as a matter of policy. The medical practice act, as an index to State medicine, should be based upon the highest standards of the profession. Any encroachment upon these legalized standards by reducing the requirements for qualification must be regarded as inimical to public and professional policy.

Now that Ohio law-makers, under pressure of combined influences, seem likely to shift attention from public policy to public petitions, it remains for the medical profession to insist upon the maintenance of State medical standards in accord with those of the profession.

To meet new conditions demanding immediate consideration, in relation to the medical practice act, your attention is directed to the fundamental principles governing the subject. There are but two principles upon which the State can base medical practice regulation. When properly enforced, either principle will preserve professional standards.

The *restrictive principle* obtains in this and many other states. The State restricts the choice of medical service to physicians qualified before the State Medical Board, forbidding the individual from employing non-qualified practitioners. No one is permitted to practice the healing art in any of its branches, for a fee, in the State unless he is qualified and licensed by the State.

Under the *definitive principle* the State simply

defines who are qualified physicians according to the requirements of the State Medical Board and allows the citizen to employ a qualified physician or a non-qualified practitioner, as he chooses. It is the policy of the State in the definitive plan to qualify physicians for its own service, in public office, in public institutions, in courts of justice, and for military, coroner, quarantine and like duties. The State in thus protecting its medical service by qualifying and licensing physicians, likewise offers the individual the protection of qualified service, but does not attempt to limit his choice, to licensed physicians. In short, in the definitive principle, for medical practice regulation, unlicensed and unqualified practitioners are permitted to practice medicine in any of its branches. There is no legal restriction to prohibit unlicensed practice. The citizen is permitted to employ whom he pleases, a physician, licensed and qualified by the State, or the meanest quack. There is a legal distinction, of course, between the qualified and the unqualified practitioner. There is maintained a legal standard of medical education and qualification before the State Board. The State medical standards are identical with those of the profession the same as under the restrictive principle.

The definitive principle has the virtue of avoiding legislation for cults and classes who clamor for special privileges to practice in certain branches of medicine. While this principle grants the privilege without stricture of law, the State withholds its endorsement by refusing even half-baked limited license.

Two objections are urged against the definitive principle. One is that it does not sufficiently safeguard the public health interests exposed to the care of unqualified practitioners, and the other is the claim that the people need the protection of the State against the frauds and evils of charlatantry, as provided under the restrictive principle.

It is submitted that the Ohio profession has reached a branch in the highway of medical practice legislation. On the one hand is the restrictive principle already crippled by Foraker statesmanship granting a limited license to the Osteopaths with limited qualifications, and constantly threatened with final dissolution from other forms of limited license poison; and on the other hand the definitive principle granting democratic privileges to cults and cult patrons, granting immunity from necessity of legislating for every medical fad, granting better preservation of professional standards in State medicine with elimination of the limited license evil, but springing a doubt as to the public health defense against

communicable disease and medical practice evils. There is serious doubt as to the outcome of the restrictive principle in Ohio. Any further limited-license graft upon this principle will further cripple or destroy its identity and worth. Cult legislation, with limited license features, stultifies the functions and integrity of the medical practice law. The Elson non-medical healing bill, if enacted, would kill the restrictive principle in Ohio. State medical boards for mechanotherapists, neuro-magnetic or other "healers," or other classes, as opticians and nurses, who are to be qualified in one or more branches under a limited license, usurp the function of the State Medical Board and stultify the restrictive principle upon which it is based. As the strength of any system is measured by that of its weakest part, so the standards of State medicine would be lowered to the levels of the limited license doctrine. The only attitude the profession can sustain toward medical regulation is expressed in terms of medical standards evolved from scientific study.

Shall the standards of medical education and qualification, attained by the profession, be maintained by the State Medical Board, or will the State lower these standards by letting down the bars of licensure to please the fads of the day? These questions will be answered by the activities of the combined influences working for the limited license doctrine, unless medical men come to the rescue of the restrictive principle or initiate the definitive method of medical practice regulation.

Let it be understood that the profession is not antagonizing any class or cult, only so far as they encroach upon State medical standards. These typify the principles of medical organization. They must be maintained under one or the other principles of medical practice regulation. The question of public policy, as to whether successful efforts can and should be made to better maintain the present restrictive principle, or whether the definitive method should be endorsed can be decided only after careful study of all the facts and conditions entering the complex problem.

The conditions have become too acute in Ohio to wait for the developments of the Legislative Committee of the American Medical Association which is making an exhaustive study of this subject. The entire profession as represented by the several State organizations should go on record in a declaration of convictions upon medical practice regulation, after careful investigation and study. The object of such a manifesto would be to declare to members of the General Assembly such principles and objects of medical practice legislation as would furnish a guide in disposing

of the bills for the opticians, nurses and cult healers as would best conserve the public good as well as the rights and interests of all concerned.

The House of Delegates must take the initiative in such a preconcerted action on the part of the entire profession or entrust the responsibility of solving this complex problem to the discretionary powers of the Joint Committee on Public Policy and Legislation. It should be remembered that the by-laws provide that this committee, under the direction of the State Committee, has authority to represent the Association in legislative matters. We are seeking aid from the entire profession in order that a consensus of judgment may be exercised in an attempt to bring about the best results. Prompt action is desired in order that the Joint Committee may receive suggestions and co-operation at its meeting before the adjournment of the Association.

(Signed) J. W. CLEMMER,
W. H. SNYDER,
GEO. H. MATSON.

Dr. Blake presented the following amendment to the By-Laws:

Chapter V, Section 2, add: Each District Society, duly established, shall have the privilege of presenting, through the Nominating Committee of the House of Delegates, a nomination for councilor of its district, the name so presented having been chosen at a meeting, in the call for which a notice of such election has been incorporated, and with at least fifteen members present and voting.

On motion, the House of Delegates adjourned to 7 p. m.

The House of Delegates was called to order at 7:30 p. m. by the Chairman. The Secretary read the report of the Publication Committee, which, on motion, was accepted and ordered printed in the JOURNAL.

REPORT OF PUBLICATION COMMITTEE.

COLUMBUS, May 6, 1908.

Your Publication Committee begs leave to submit the following report:

The JOURNAL year has been changed to conform to the calendar year, so as to harmonize with the books of the Treasurer of the Association.

Volume III, therefore, consisted of but six numbers, embracing from July to December, inclusive.

It contained 356 pages of reading matter, a gain of 15 pages over the corresponding period of the year preceding, although the use of eight-point type gave a still greater gain in actual reading matter.

The first five numbers of Volume IV, already published, have contained 324 pages of reading matter, which is a gain of six pages per number, and which with the uniform use of eight-point type for everything except editorial, makes a very much greater gain in actual material.

MATERIAL.

There has been no change in the appearance or style of the JOURNAL. The paper used has remained of the same fine quality, which, though more expensive than ordinarily used in such journals, is better adapted for preservation and for the printing of cuts or engravings.

It has been found advisable to use eight-point type throughout, except for editorials, thus allowing of the publishing of much more material at less expense.

ORIGINAL ARTICLES.

Volume III contains 39 original articles. Of these, 20 were read at the State meetings, 11 at various County Societies, five at District Meetings, and three especially written for the JOURNAL. Of these, all but nine were written by members of the Association, and of these nine, four were special addresses before the annual meeting at Cedar Point.

Volume IV to date has contained 37 original articles, all of which were read at the Cedar Point meeting. Owing to the large number of papers presented at that meeting it has been the policy of the committee to give them first place, and therefore it has been necessary to regretfully decline many excellent articles which have been offered for publication.

The character of the articles published has been uniformly high and your committee feels that in this department the JOURNAL ranks with any of the State journals.

EDITORIALS.

In the editorial department your committee has endeavored to treat of questions of the day of interest to the State Association, organization work, legislative matters, and the medical profession in general.

Of these, Vol. III contained 23, and Volume IV to date 16. They cover a wide range of subjects, but because of the present session of the Legislature have devoted considerable attention to legislative matters affecting medical interests.

CORRESPONDENCE.

This department has been utilized to some extent during the past year, but your committee feels that it would be of value if the members should avail themselves of this opportunity to express their views more freely. At the same time

it does not feel that it should be utilized for controversial or critical purposes.

CURRENT LITERATURE.

A large amount of abstracted material has been published under this head, under the continued management of J. E. Tuckerman of Cleveland. It is hoped that the members have found much information of a practical nature in this department.

BOOK REVIEWS.

A large number of books have been reviewed in the JOURNAL, and an honest effort has been made to give an accurate and unbiased opinion as to the value of the books submitted. In some instances it has been necessary to criticize adversely; in others, unstinted praise has been given; in all cases the value to the practicing physician has been the criterion.

SOCIETY NEWS.

Your committee is pleased to report a great improvement in this department.

The amount of material reported each month from the component societies has doubled and trebled in this past year.

This is work of great importance, and it requires the earnest co-operation of all the County Secretaries. Many Secretaries have rendered efficient service in this direction, and we take this opportunity of thanking them.

Many more, however, have failed to take sufficient interest in this department to report the transactions of their societies. This is, we believe, a dereliction of duty, and we would impress most earnestly upon those Secretaries the importance and value of full reports of the meetings, and especially of abstracts of the papers read. The editor has invited Secretaries to send papers to him for abstracting, and has abstracted several. He is, therefore, aware of the task involved. The committee would recommend therefore to the component societies the insertion of a by-law such as has been presented as an amendment to the Columbus Academy of Medicine as follows:

Article X, Section 1, Paragraph 2. Each essayist shall present with his paper an abstract of the same, which shall be forwarded by the Secretary to the editor of the STATE MEDICAL JOURNAL for publication.

MEDICAL ECONOMICS.

A new department under this heading has been instituted largely under the inspiration of J. W. Clemmer, the Chairman of the Committee on Public Policy and Legislation. Its purpose is for the dissemination of information along this most important and practical side of the practice of

medicine, and is, we believe, of great value to the work of organization. Numerous letters of comment and commendation have been received by the editor, showing that this department is receiving much interest and approval throughout the State.

NEWS NOTES.

The practice of publishing brief notices of interest to the medical profession has been continued, and your committee would solicit the co-operation of the members of the Association in reporting to the editor any items which may be appropriate to this department.

Especially would be welcomed reports of the progress of medical conditions and progress in the various State institutions. The latter, it seems to your committee, have not kept in as close touch with the medical profession as could be desired, and reports from time to time from the State boards and other State bodies, hospitals and the like would unquestionably lead to a closer relationship which would be a distinct advantage to all.

ADVERTISEMENTS.

In our Advertising Department the same policy has been continued as heretofore. Every effort has been made to keep those pages as clean as possible. The standard established by the Board of Pharmacy of the A. M. A. has been adhered to. The financial storms of the past six months have caused considerable anxiety on the part of the management, and the uncertainty in the business world has caused the loss of some contracts and has rendered the securing of new ones more than ordinarily arduous.

Your committee may report, however, that in spite of these difficulties the gross receipts since the first of the year have averaged \$258.00 per month, which is on the basis of somewhat over \$3000.00 per year.

It is respectfully urged that the members of the Association co-operate in assisting the JOURNAL by patronizing the advertisers and mentioning the JOURNAL in so doing.

Hoping that the JOURNAL continues to meet your approval, and seeking the benefit of your suggestions and criticisms, this report is respectfully submitted.

(Signed) THEO. W. RANKIN.

C. F. CLARK,

C. S. HAMILTON.

J. H. J. UPHAM, Chairman.

R. H. Grube, Chairman of the Committee on Medical Education, presented the following report:

The last House of Delegates authorized a

Committee on Medical Education to co-operate with the National Council of the American Medical Association, and the President appointed myself as Chairman. The council met on the 13th of April and it was a most enthusiastic meeting, and I would like to impress on this assembly the work that this council has accomplished and is accomplishing.

The first item discussed was preliminary education, and it was brought out that sixty of the eighty colleges in advanced standing have adopted the scheme of requiring in addition to the high school equipment, one year of laboratory chemistry, physics and modern language in a well equipped institution. President Eliot, who addressed the Association, said that fifty years ago few questions were asked the matriculant at Harvard. They took them off the street. He entered as a student in medicine, and said they could not introduce written examinations for years, as the students could not put their answers in writing. After 1910, sixty of these colleges will make this requirement of their applicants.

The next point discussed was what would constitute good standing in a college. The Council personally has investigated every one of the 160 colleges of the United States—almost as many as there are in all the rest of the civilized world. They did not leave report sheets for the faculties to fill up, but visited personally every college and considered its equipment and graded it according to that equipment and its teaching facilities. About eighty of them were above seventy, and these are classified as first-class institutions. The rest of them are below this standard.

Incidentally, President Eliot said that at the present time at Harvard 90 per cent. of the work is laboratory work, and only 10 per cent. of the teaching didactic. This is what our colleges all ought to be showing. It is dependent on its equipment to get such teaching.

The Medical Practice Act followed very closely the line of our Ohio practice act.

The license examination was taken up and a strong plea made for not so many written questions in these examinations, and more clinical demonstration. Of course, this means an enormous amount of work on the part of the examiners. It is done in Germany by some of their greatest men, who give their time freely and without remuneration.

The question of reciprocity was brought up, which interests a great many of our profession today. The advanced standing requirements were not put into operation in this State until 1896, and the same is true about all over the country. Now when one of us wishes to go from one

State to another, he must take the same examination that the recent graduate takes, even at fifty years of age. A strong plea was put up to have this changed, giving each board the power to investigate a man's past history and if satisfactory allow him to take up practice in the State without medical examination.

Another point is that three states, Minnesota and the two Dakotas, have given their Boards of License the power to refuse to examine applicants from any college below the standard. Our own Board of License has passed such a resolution, and the idea ought to extend all over the United States.

On motion, duly supported, the report was accepted.

REPORTS OF COUNCILORS.

FIRST DISTRICT—BROOKS F. BEEBE: The report of this district does not vary much from last year, although good progress has been made. There are about 700 members in the nine counties composing the district, which is an increase of about 12 per cent. Ninety-six papers have been presented, 200 cases reported, and about 100 cases presented. A large number of guests have read papers, which is an important factor in keeping up the interest and bringing out a good attendance. The practice should be more followed over the State.

In Brown County the Society work has been confined almost entirely to clinical work, with excellent results, and I have suggested and do suggest more practical work be brought into the Society meetings.

THIRD DISTRICT—F. D. BAIN: I have only a partial report of the Third District to present, but I feel that I may say in general that is the best district in the State. One of the most successful features of the past year has been the joint meetings between the counties. Several of these have been held, and scientifically and socially they have been most efficacious in arousing interest and establishing pleasant relations.

The increased interest is evidenced by the large representation from this District here at this meeting. The Third District is wideawake; it is in a flourishing condition, and I am proud to be its Councilor.

SIXTH DISTRICT—T. CLARKE MILLER: Affairs in this District are, in a general way, in an excellent condition, and I feel that we are gaining ground. Our District Society was an old inter-county organization which was merged into its present form. There were some difficulties in regard to details which have been satisfactorily settled. We have been much helped by visitors

from the Cleveland Academy of Medicine and others of the Fifth District.

SEVENTH DISTRICT—J. C. M. FLOYD: This District has been doing very well. There has been a large increase in membership, due largely to the assistance of the American Medical Association. Jefferson and Columbiana Counties have done especially well. I believe that every eligible man is a member save one. Visitors from Cleveland, Wheeling, Pittsburg, Columbus, etc., have read papers, which have been of interest and value. At our District meeting, our President and Dr. McCormick were with us, and a public meeting was held in the evening which produced some good results among the laity.

In Tuscarawas County post-graduate work has been successfully inaugurated, and we expect to take it up in other counties this fall. Only one county has shown any weakness and I hope to report better of it next year.

EIGHTH DISTRICT—C. S. McDOUGALL: As the hour is late I will state briefly that this District is in excellent condition, and that, with the exception of one, all the counties have very good societies. There has not been over a 4 per cent. increase in membership, but the great majority of eligible physicians are already members. Our District meeting was held at Newark, and was a great success.

NINTH DISTRICT—JOHN E. SYLVESTER: This District is in a flourishing condition. The societies are doing good work individually, and we had an excellent District meeting in December.

TENTH DISTRICT—T. W. RANKIN: Every county is now organized. The societies are active and vigorous, and I report excellent progress in this District in the past year.

On motion, the meeting then adjourned.

House of Delegates called to order Thursday at 1:30 p. m.

After the roll call, the synopsis of the minutes of the preceding two meetings was then read by the Secretary, and with the substitution of the name of Dr. Miller for that of Dr. Bain on the committee to meet the Board of Registration, was approved as read.

The Nominating Committee then presented their nominations, and the election was proceeded with, with the following result:

President—D. R. Silver of Sidney.

First Vice President—F. F. Lawrence, Columbus.

Second Vice President—J. Eakin, Gallipolis.

Third Vice President—A. B. Walker, Canton.

Fourth Vice President—Harry Noble, St. Mary's.

Councilor of Fifth District—Clyde E. Ford, Cleveland.

Councilor of Tenth District—C. D. Mills, Marysville.

Member National Legislative Committee—B. R. McClellan.

Committee on Public Policy and Legislation—J. W. Clemmer, Chairman, G. H. Matson, W. H. Snyder.

Publication Committee—C. F. Clark, C. S. Hamilton.

D. R. Silver was escorted to the platform and called upon to address the meeting.

DR. SILVER'S ACCEPTANCE OF ELECTION TO PRESIDENCY.

Mr. Chairman, Gentlemen and Ladies: What can I say in this moment of my embarrassment but to thank you for this expression of your trust and of your confidence! What more can I say, except a few words of reminiscence. Thirty-eight years ago the man whom you have honored today first became a member of the Ohio State Medical Association. At that time, in 1870, the Association met in the city of Cleveland. There was an enrollment of about 400 names, and 200 were in attendance. Some of us have lived to a time when we have seen this Association grow from a society small in numbers and small in influence, to a great body of four thousand men, who are making history. A change has come over the spirit of our dream, or, rather, perhaps we have ceased dreaming altogether and have entered upon a period of actual work—work for the good of our country. We have departed somewhat from medical lines and have decided to enter upon a period of political endeavor as well as upon the straight line of medical work. Gentlemen, there are few physicians who do not consider it now their duty to make an effort in this direction and do something for their country's good. I trust, gentlemen, that some time in the near future some of us at any rate, some who are honored in this Association, will consider it a duty to be permitted to enter the halls of legislation and do work along those lines as well as all the lines laid down in our medical curriculum.

To be permitted, gentlemen, to preside over your deliberations in such times as these entails on a man responsibilities that have not been borne hitherto by a presiding officer. I trust that in the year to come I shall have that strength of purpose and that upholding of the hands by the other officials that will help me to discharge my duty faithfully.

In conclusion, let me thank you again for this mark of your trust and your confidence. (Great applause.)

NEXT MEETING.

Dr. Fackler, in behalf of Hamilton County, gave a cordial invitation for the next meeting to be held in Cincinnati.

C. N. Smith, in behalf of Lucas County, invited the Association to meet in Toledo.

William Story of Erie County extended an invitation on behalf of Sandusky and Cedar Point. On motion, Cincinnati was selected.

On motion, duly supported, the time of the meeting was left for the decision of the Councilors and officers of the Association.

The following telegram was read by the President:

DAYTON, O., May 6, 1908.

C. L. Bonifield, President Ohio State Medical Society, Columbus, O.:

The Ohio State Electric Medical Association in Convention extends greetings. We stand together on preventive medicine and the prevention of tuberculosis.

A. S. McKittrick, President.

THURSDAY, MAY 7, 1908.

House of Delegates called to order by the Chairman at 7:20 p. m.

There being no objection, the roll call was dispensed with. The Secretary read a synopsis of the minutes of the preceding meeting.

B. R. McClellan of Xenia read the report of the Legislative Council.

REPORT OF THE CHAIRMAN OF THE NATIONAL LEGISLATIVE COUNCIL.

Your member of the National Legislative Council begs leave to submit the following report:

There are now associated with the Chairman representatives from eighty-two county societies, all of whom are vitally interested in the work of the Council. A conference of the Committee of Medical Legislation of the American Medical Association and the National Legislative Council was held in Chicago, December 10, 11 and 12, 1907. This conference was very largely attended and much time was given to the consideration and endorsement of certain bills then pending or about to be introduced into Congress. Of these the Army Reorganization bill has since become a law, and the bill providing pensions for the widows of Drs. Carroll and Lazear have passed the Senate and are now in the hands of the Pension Committee of the House.

The conference received reports on the progress of Medical Legislation from representatives of many different states. These reports brought out and emphasized the need of a deliberative body that could take up these important questions and

thoroughly discuss them in order that instead of discord there should result uniformity and harmony in all legislative matters relating to public health and medical practice. It was especially demonstrated that as yet the laws governing the latter are in many states crude and in need of intelligent revision.

Indeed the keynote to this conference might be said to be the need of uniformity and reciprocity in medical legislative matters.

The conference sends to the various State societies a plea for harmony along these lines and the suggestion that as individual states we proceed slowly in proposing legislative questions until such time as the Legislative Committee of the A. M. A. shall have been able to fully consider and formulate a law that will serve as a model.

The conference recognized the fact that knowledge of existing laws is essential to progress along these lines, and therefore adopted the following resolution:

"Resolved, That the Bureau of Legislation is hereby requested to compile all existing Federal laws relating directly or indirectly to the public health, as now administered by all departments of the National Government, including the laws relating to the medical services of the Army and Navy, and to issue the same in the form of a bulletin at the earliest possible date."

It was furthermore urged upon the members of the Council that there should be a similar gathering together of public health laws, both State and municipal, and that these should be kept, not only before the medical profession, but that there should be a systematic effort to enlist the interest of the general public. The importance of such a movement is obvious and keenly realized by all who have had to do with legislative committee work. It is therefore a special pleasure for me to announce that this suggestion has already been acted upon, and that there is in existence today such an organization, called the Public Welfare League of Ohio, which has for its avowed object the promotion of the physical welfare of the people, and for its immediate purposes the following:

(1) The organization of all existing national public health agencies into a single National Health Department with such improved status, increased powers and ample financial support as will give the Federal Government the strongest possible control over the national public health interests.

(2) The extension of the powers of the State in relation to the public health by giving safe and adequate sanitary protection to all residents of

the State outside of the municipalities now provided with sanitary organization.

(3) The sanitary control, including police supervision, of all sources of public water supply by the State and embracing the sanitary patrol and protection of all inter-State streams by the Federal Government.

(4) The inauguration of a complete system of registration of births and deaths in connection with an efficient State bureau of vital statistics.

(5) The enactment and enforcement of a stringent pure food and drug law, including the rigorous control of all public milk supply in the State of Ohio.

(6) A strong and relentless campaign against the deadly plague of tuberculosis, including a reform in the housing of tenements in city, town and country.

(7) The enforcement of a strong child-labor law.

(8) Co-operation with all existing organizations devoted in whole and in part to any of the declared objects of the league.

(9) Medical inspection of schools.

It is earnestly hoped that the Ohio State Medical Association will adopt and make use of this most practical way of gaining the much-needed co-operation of the public.

If we, as doctors, ever hope to be, in truth as well as in name, leaders of the people in all matters of public health, we must not only elevate our standard of qualification to practice medicine, but we must also deal frankly with the people and thereby win their confidence and support, both in securing and enforcing health laws.

On motion, this report was received and placed on file.

J. E. Sylvester reported that the Council, to which was referred the appointment of officers for the newly-made Section on Nervous and Mental Diseases, had appointed B. F. Beebe, of Cincinnati, Chairman; S. P. Fetter, Secretary.

The matter of the Department of Hygiene and Sanitary Science was not acted on, but will have further consideration.

C. E. Ford reported that the Committee on Amendment to the Constitution and By-Laws approved for passage the proposed addition to Chap V, Sec. 2 (see above). The proposed amendments to Chapters VI and VII and IX were not approved.

T. Clarke Miller moved adoption of report, which was seconded. After some discussion the recommendation to approve the addition to Chapter V was opposed, and, the motion being put, was lost by a rising vote of 24 to 15.

C. E. Ford moved that the Secretary be in-

structed to mail to the senior students in all of the regular colleges in Ohio THE STATE MEDICAL JOURNAL from October 1 to May each year. The motion was seconded and carried.

N. W. Brown offered the following amendment to the constitution:

Art. VIII, Sec. 2. Term of Office.—The Secretary and Treasurer shall be elected for terms of five years. The councilors shall be elected for terms of three years, the councilors being divided into classes, so that four shall be elected each year.

To by-laws:

Chapter V, Section 2. It shall divide the counties of the state into twelve councilor districts.

Chapter VI, Section 2. The House of Delegates on the first day of the annual session shall elect a committee on nominations, consisting of twelve delegates, no two of whom shall be from the same councilor district.

The chair announced that this would take the usual course of proposed amendments.

Dr. Brown moved that the expenses of the Secretary of the Ohio State Medical Association be paid to the meeting at Chicago in June from the general fund of the State Association. Motion seconded and carried.

Dr. Upham said he had received a communication from Dr. Simmons asking for action by the House of Delegates on the proposition made at Atlantic City in regard to proposed branch associations to meet in various parts of the United States.

Dr. Sylvester moved that the Secretary be instructed to communicate to Dr. Simmons that this association disapproves of such action at this time. The motion was seconded and carried.

J. E. Sylvester moved the reconsideration of the matter of the adoption of the report of the committee on revision of constitution and by-laws. The motion to reconsider was carried.

J. A. Thompson moved that the report of the committee be received. Motion seconded and carried.

It was then moved that all the report be adopted with the exception of the first recommendation (Chapter V, Section 2). Motion supported and carried.

On motion, duly supported, the House of Delegates thereupon adjourned sine die.

LIST OF MEMBERS AND GUESTS AT SIXTY-THIRD ANNUAL MEETING.

John C. Archer, Shadyside, O.; C. Z. Axline, Fultonham, O.; H. C. Allen, Circleville, O.; G. B. M. Andre, South Webster, O.; C. I. Anders, Old Fort, O.; J. B. Alcorn, Gallipolis, O.; L. D. Allard, Portsmouth, O.; J. W. Adair, Marion, O.;

James G. Alcorn, Columbus, O.; S. E. Allen, 22 W. Seventh St., Cincinnati, O.; O. C. Andre, Waverly, O.; H. B. Anderson, Newark, O.; F. P. Anzinger, Springfield, O.; E. V. Ackerman, Fredericktown, O.; Casper H. Benson, Columbus, O.; Roy E. Brown, Washington C. H., O.; J. H. Beekman, 1142 N. High St., Columbus, O.; G. O. Beery, Lancaster, O.; S. V. Burley, Lorain, O.; V. P. Boreing, Lima, O.; William Evans Bruner, New England Bldg., Cleveland, O.; R. E. Bower, Chillicothe, O.; G. O. Blair, Tiro, O.; Read L. Bell, Springfield, O.; H. H. Bown, Pleasant City, O.; Howard M. Brundage, Columbus, Ohio State Hospital; L. G. Bowers, Dayton, O.; L. G. Brock, Washington C. H., O.; I. A. Bradley, State Hospital, Columbus, O.; A. Baker, Rose Bldg., Cleveland, O.; A. C. Beetham, Bellaire, O.; Geo. Bean, Rutland, O.; Oscar Berghausen, 19 W. Seventh St., Cincinnati, O.; E. E. Burns, Kirby, O.; H. A. Baldwin, Grant Hospital, Columbus, O.; B. H. Blair, Lebanon, O.; John Edwin Brown, 239 E. Town St., Columbus, O.; Horace Bonner, Dayton, O.; D. H. Biddle, Athens, O.; J. A. Beery, Columbus, O.; Charles F. Bowen, Grant Hospital, Columbus, O.; C. L. Bonifield, Cincinnati, O.; B. F. Barnes, Newark, O.; Francis W. Blake, 185 E. State St., Columbus, O.; J. S. Beck, 34 W. Fifth St., Dayton, O.; M. A. Bartley, 795 W. Broad St., Columbus, O.; Brooks F. Beebe, Cincinnati, O.; Albert S. Barnes, 860 E. Main St., Columbus, O.; N. Worth Brown, 226 Michigan St., Toledo, O.; R. D. Burnham, Piqua, O.; James U. Barnhill, 248 E. State St., Columbus, O.; Frank D. Bain, Kenton, O.; W. W. Brand, 216 Michigan St., Toledo, O.; H. U. Begg, Columbus Grove, O.; Harvey L. Bounds, Carroll, O.; S. H. Britton, Marion, O.; S. O. Barkhurst, Steubenville, O.; E. C. Brush, 117 N. Seventh St., Zanesville, O.; D. W. Brickley, Canal Winchester, O.; T. A. Burke, Rose Bldg., Cleveland, O.; F. D. Barker, Dayton, O.; H. D. Belt, Kenton, O.; E. J. Barnes, Granville, O.; W. N. Bradford, Cambridge, O.; James A. Beer, 19 W. Tenth Ave., Columbus, O.; A. C. Bauer, Fulda Bldg., Cincinnati, O.; A. H. Bell, 310 Osborn Bldg., Cleveland, O.; H. B. Blankenhorn, Orrville, O.; G. H. Bonnell, Jersey, O.; A. H. Beam, Hillsboro, O.; Harry G. Blaine, Chicago, O.; E. L. Brady, Marion, O.; S. R. Best, Centerville, O.; W. B. Carpenter, Lewis Center, O.; B. F. Cameron, Jerusalem, O.; F. S. Clark, 1917 E. Ninetieth St., Cleveland, O.; O. R. Cain, Cambridge, O.; Chas. A. Cooperider, 370 S. Fourth St., Columbus, O.; C. W. Chidester, Delaware, O.; Wm. Clark, 783 Cedar Ave., Cleveland, O.; M. M. Corwin, Savona, O.; C. E. Case, Ashtabula, O.; Geo. S. Courtright, Lithopolis, O.; E. W. Cornet, Piquette, O.; Rebecca V. Combs, 1187 Franklin, Columbus, O.; Warren Coleman, Troy, O.; J. J. Coons, 106 E. Broad St., Columbus, O.; F. P. Corrigan, 1550 Superior Ave., Cleveland, O.; E. L. Carlton, Canal Winchester, O.; E. E. Carlton, 1232 Mt. Vernon Ave., Columbus, O.; D. B. Conklin, Dayton, O.; G. E. Cowles, Ostrander, O.; J. S. Carlton, 1187 Neil Ave., Columbus, O.; J. W. Clemmer, 112 Parsons Ave., Columbus, O.; T. E. Courtright, 64 S. Third St., Columbus, O.; T. C. Crawford, Duncensville, O.; Albert Cooper, 44 E. Duncan St., Columbus, O.; Harriet Bailey Clark, 112 E. Broad St., Columbus, O.; J. W. Collins, Toronto,

O.; W. R. Coleman, Guysville, O.; L. R. Culbertson, Zanesville, O.; G. M. Clouse, 948 Mt. Vernon Ave., Columbus, O.; N. R. Coleman, 264 E. Town St., Columbus, O.; S. A. Cunningham, Marietta, O.; Elizabeth Cheatham, Marion, O.; D. V. Courtright, Circleville, O.; C. A. Craig, Ava, O.; C. F. Clark, Columbus, O.; T. Caris, Shauck, O.; A. B. Campbell, Orrville, O.; Hugh W. Chaney, Sugar Tree Ridge, O.; P. H. Cosner, Newark, O.; E. C. Carr, Coshocton, O.; W. J. Conklin, Dayton, O.; John Donley, 261 Cleveland Ave., Columbus, O.; J. E. Detamore, Hillgrove, O.; C. L. Difford, Lorain Ave., Cleveland, O.; M. T. Dixon, 576 S. Third St., Columbus, O.; O. A. Dickson, Jefferson, O.; Carrie Chase Davis, Sandusky, O.; E. M. Dixon, Stockdale, O.; R. S. Dunlap, Greenfield, O.; Earl B. Downer, 526 St. Clair Ave., Columbus, O.; A. B. Davenport, 240 Miller Ave., Columbus, O.; A. C. Dempster, Ulrichsville, O.; J. M. Dunham, 222 E. Town St., Columbus, O.; John Dudley Dunham, 185 E. State St., Columbus, O.; E. A. Dye, Vienna Crossroads, O.; Geo. P. Dale, Dayton, O.; Chas. D. Dennis, 52 E. Rich St., Columbus, O.; E. F. Danford, Glouster, O.; J. P. DeWitt, Canton, O.; W. D. Deuschle, 112 E. Broad St., Columbus, O.; Geo. W. Deem, Hilliard, O.; Wm. C. Davis, 200 E. State St., Columbus, O.; Verne A. Dodd, 715 N. High St., Columbus, O.; A. Delaplane, South Solon, O.; Jno. M. Denison, Crooksville, O.; M. A. Darbyshire, McComb, O.; O. H. Dunton, Circleville, O.; James Alexander Duncan, 1107 Broadway, Toledo, O.; Geo. B. Evans, Dayton, O.; W. F. Emery, Ashland, O.; Earl W. Euans, 1450 N. High St., Columbus, O.; A. E. Evans, 308 E. Broad St., Columbus, O.; E. J. Emerick, Ohio Inst. for Feeble-minded Youth, Columbus, O.; S. J. Ellison, Harveysburg, O.; Jehu Eakins, Gallipolis, O.; William A. Ewing, Dayton, O.; S. E. Edwards, Deucher, O.; W. R. Evans, 207, Portsmouth, O.; F. B. Entrikin, Findlay, O.; J. B. K. Evans, McGuffey, O.; L. E. Evans, West Jefferson, O.; Joseph Eichberg, 22 W. Seventh St., Cincinnati, O.; W. H. Eastman, Fredericktown, O.; J. F. Fox, The Spitzer, Toledo, O.; Clyde E. Ford, The Osborn Bldg., Cleveland, O.; E. S. Folk, Canton, O.; Albert H. Freiberg, Cincinnati, O.; A. W. Francis, Ripley, O.; F. G. Farr, South Charlestown, O.; G. A. Fackler, 108 Garfield place, Cincinnati, O.; J. C. M. Floyd, Steubenville, O.; Fred Fletcher, 185 E. State St., Columbus, O.; Starr Forg, Auburndale place, Cincinnati, O.; Samuel P. Fetter, Gallipolis, O.; J. M. Firmin, Findlay, O.; John Finley, Caldwell, O.; Silas W. Fowler, Delaware, O.; P. A. Gordon, 836 Neil Ave., Columbus, O.; A. B. Gudenkauff, 827 N. Ohio Ave., Sidney, O.; Harry Gabriel, 22 W. Gay St., Columbus, O.; D. Tod Gilliam, 50 N. Fourth St., Columbus, O.; Earl M. Gilliam, 50 N. Fourth St., Columbus, O.; Chas. Graefe, Sandusky, O.; H. S. Green, Cardington, O.; C. F. Gilliam, 321 S. Ohio Ave., Columbus, O.; D. W. Greene, Dayton, O.; J. L. Gahm, Jackson, O.; J. L. Gordon, 2555 N. High St., Columbus, O.; R. D. Gibson, Youngstown, O.; H. R. Geyer, Zanesville, O.; W. W. Glenn, Hillsboro, O.; J. E. Groves, Ulrichsville, O.; G. R. Gardner, Asheville, O.; R. H. Grube, Xenia, O.; J. M. Good, 731 McMakin Ave., Cincinnati, O.; Geo. Goodhue, Dayton, O.; S. J. Goodman,

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Marsh, Flushing, O.; Wm. F. Marting, 287 S. Third St., Ironton, O.; Jno. E. Monger, Gettysburg, O.; J. M. Moore, 6726 St. Clair Ave., Cleveland, O.; Chas. S. Means, 715 N. High St., Columbus, O.; Geo. William Miller, 228 E. Town St., Columbus, O.; C. L. Minor, Springfield, O.; James S. McClellan, Bellaire, O.; T. Clarke Miller, Massillon, O.; Wm. J. Means, 715 N. High St., Columbus, O.; J. W. Murphy, 4 W. Seventh St., Cincinnati, O.; O. M. McLaughlin, Rocky Hill, O.; W. A. Melick, 44 N. Sixth St., Zanesville, O.; J. W. Murphy, Eagle Mills, O.; A. C. Miller, Covington, O.; J. T. Merwin, Athens, O.; R. W. Miller, Hemlock, O.; James Miller, Congo, O.; Clem D. McCoy, Kenton, O.; C. C. McLaughlin, Dunkirk, O.; Park L. Myers, 2730 Monroe St., Toledo, O.; J. B. McMillen, Somerton, O.; J. J. McCloud, Broadway, O.; J. G. McDougall, New Lexington, O.; J. D. Miller, 432 W. Fourth St., Cincinnati, O.; David Mowry, Bellefontaine, O.; Chas. W. Moots, Madison Court, Toledo, O.; Chas. Miesse, Chillicothe, O.; L. McKittrick, Dublin, O.; F. T. Marr, Chillicothe, O.; George Marshall, Dell Roy, O.; J. Lillian McBride, Mansfield, O.; Jesse McClain, Coshocton, O.; D. C. Mills, New Lebanon, O.; E. S. McKee, 19 W. Seventh St., Cincinnati, O.; Myron Metzenbaum, 2315 E. Fifty-fifth St., Cleveland, O.; S. L. McCurdy, Pittsburgh, Pa. (guest); T. B. Norris, 447 W. Sixth Ave., Columbus, O.; I. E. Niles, 365 S. Fountain Ave., Springfield, O.; A. W. Nelson, 548 W. Seventh Ave., Cincinnati, O.; G. B. Nessley, Grove City, O.; T. Nunemaker, Williamson, W. Va. (guest); Harry S. Noble, St. Marys, O.; A. B. Nelles, 198 E. State St., Columbus, O.; B. D. Osborn, Waldo, O.; N. P. Oglesby, 72 Parsons Ave., Columbus, O.; H. B. Ormsby, Rose Bldg., Cleveland, O.; John E. Overly, 1453 E. Main St., Columbus, O.; W. A. Ort, Springfield, O.; C. T. Okey, 56 S. Fourth St., Columbus, O.; C. A. Portz, Baltic, O.; Wm. H. Pritchard, Gallipolis, O.; Frank E. Pomeroy, Chardon, O.; C. E. Pfeiffer, 371 E. Livingston Ave., Columbus, O.; Byron Palmer, 206 E. State St., Columbus, O.; Wendell C. Phillips, New York City, N. Y. (guest); W. C. Pickering, 70 S. Grant Ave., Columbus, O.; M. A. Probert, 226 W. Eighth Ave., Columbus, O. (guest); D. A. Perrin, 59 E. Second, Chillicothe, O.; Wm. D. Porter, 2529 Gilbert Ave., Cincinnati, O.; R. A. Postle, Asheville, O.; C. U. Patterson, Urichsville, O.; W. H. Parker, Wellston, O.; W. W. Pennell, Mt. Vernon, O.; Joseph Price, Columbus, O.; R. J. Pumphrey, Massillon, O.; W. B. Patton, Spring-

field, O.; E. S. Protzman, Kenton, O.; I. N. Palmer, Newark, O.; Lucy W. Pine, Washington C. H., O.; A. L. Pritchard, Nelsonville, O.; H. P. Pomerene, Canton, O.; F. J. Prunty, Belpre, O.; John Phillips, Cleveland, O.; H. M. Platter, Columbus, O.; C. O. Probst, Columbus, O.; Andrews Rodgers, 137 E. State St., Columbus, O.; D. A. Rannels, Logan, O.; Robert C. Rind, Springfield, O.; F. W. Roush, National Military Home, Ohio; J. H. Ray, Coalton, O.; J. F. Reynolds, 874 Mt. Vernon Ave., Columbus, O.; James B. Ray, Portsmouth, O.; H. S. Reger, Ironton, O.; C. A. L. Reed, Cincinnati, O.; T. W. Rankin, 137 E. State St., Columbus, O.; D. H. Rowe, Washington C. H., O.; M. M. Rarick, Neil and Fifth Aves., Columbus, O.; Edwin Ricketts, 408 Broadway, Cincinnati, O.; R. A. Rice, 946 Oak St., Columbus, O.; J. M. Rhodes, 602 Parsons Ave., Columbus, O.; A. C. Roberts, Morrow, O.; H. D. Rhinehart, Dayton, O.; Wm. A. Ray, Scioto, O.; C. C. Ross, 1075 Oak St., Columbus, O.; James M. Rector, 220 E. State St., Columbus, O.; W. E. Ranchous, 38 W. Fifth Ave., Columbus, O.; Leo Reich, 3957 St. Clair, Cleveland, O.; H. A. Rodebaugh, 71 Winner Ave., Columbus, O.; Geo. P. Reibel, Ashland, O.; Wm. Roush, Spencerville, O.; Albert S. Rudy, Lima, O.; J. B. Ray, Omega, O.; J. S. Rardin, Portsmouth, O.; A. Ravogli, 5 Garfield place, Cincinnati, O.; Agusta Rhu, Marion, O.; Thad. A. Reamy, May and June Sts., Cincinnati, O.; G. E. Robbins, 65 E. Main St., Chillicothe, O.; L. A. Ruhl, Covington, O.; S. S. Richards, Summit Station, O.; G. W. Rogers, 255 W. Fifth Ave., Columbus, O.; John Rauschkolb, 246 E. Fulton St., Columbus, O.; F. S. Rarey, 1059 E. Main St., Columbus, O.; O. W. Robe, Portsmouth, O.; C. G. Randall, Harveysburg, O.; H. C. Rutter, 664 Park St., Columbus, O.; J. Reasoll, Hilliards, O.; G. W. Ryall, Wooster, O.; Victor Ray, The Groton, Cincinnati, O.; John E. Russell, Mt. Vernon, O.; Chas. A. Stephens, Helena, O.; E. O. Smith, 19 W. Seventh St., Cincinnati, O.; F. J. Schmoldt, 5132 Superior Ave., Cleveland, O.; W. S. Sampson, Lancaster, O.; B. M. Sharp, Sidney, O.; A. B. Smith, Wellington, O.; C. D. Selby, 502 Main St., Toledo, O.; E. B. Shanley, New Philadelphia, O.; J. P. Symons, Rockford, O.; W. G. Stern, Schofield Bldg., Cleveland, O.; H. G. Southard, Marysville, O.; Jno. E. Sylvester, Wellston, O.; D. W. Steiner, Lima, O.; D. B. Smith, The Arcade, Cleveland, O.; Carl L. Spohr, 915 S. High St., Columbus, O.; J. A. Stout, 182 E. Long St., Columbus, O.; P. D. Shriner, Columbus, O.; Geo. C. Schaeffer, The Lexington, Columbus, O.; O. M. Shirey, Rose Bldg., Cleveland, O.; R. C. Spear, Mt. Gilead, O.; Erminie H. Smallwood, 81 W. Second St., Chillicothe, O.; Robert Sattler, Groton, O.; I. P. Seiler, Piketon, O.; H. G. Sherman, Rose Bldg., Cleveland, O.; H. T. Sutton, Zanesville, O.; W. G. Stinchcomb, Bellefontaine, O.; D. J. Snyder, 1409 N. High St., Columbus, O.; J. P. Sawyer, Rose Bldg., Cleveland, O.; H. M. Samson, Lancaster, O.; M. Stamm, Fremont, O.; W. F. Smeltzer, London, O.; G. W. Snively, West Lebanon, O.; C. C. Stokes, Rushsylvania, O.; R. R. Shank, Trotwood, O.; Chas. J. Shepard, 112 E. Broad St., Columbus, O.; C. N. Smith, 234 Michigan St.,

Toledo, O.; D. R. Silver, Sidney, O.; W. H. Snyder, 211 Ontario St., Toledo, O.; C. D. Slagle, Centerville, O.; Ernest Scott, Board of Health, Columbus, O.; Webster S. Smith, Dayton, O.; W. E. Sampliner, Rose Bldg., Cleveland, O.; A. J. Skeel, 1002 Rose Bldg., Cleveland, O.; M. C. Sprague, London, O.; R. R. Smith, East Liberty, O.; A. G. Sturgis, Lower Salem, O.; Chas. C. Stuart, Lennox Bldg., Cleveland, O.; I. L. Stevens, Mansfield, O.; O. T. Sproull, West Union, O.; E. C. Sherman, Fulton, O.; H. M. Schuffle, Canton, O.; A. L. Sherick, Ashland, O.; C. E. Silbernagle, 983 N. High St., Columbus, O.; Geo. S. Stein, S. High St., Columbus, O.; J. B. Sampsell, Dayton, O.; R. Blee Smith, 112 E. Broad St., Columbus, O.; David Sisson, Middleport, O.; G. W. Sampson, Upper Sandusky, O.; W. S. Scully, Reynoldsburg, O.; R. E. Skeel, Prospect Ave., Cleveland, O.; L. F. Smead, 242 Michigan St., Toledo, O.; Geo. Stockton, State Hospital, Columbus, O.; D. G. Sanor, 206 E. State St., Columbus, O.; A. M. Steinfeld, Columbus, O.; C. W. Sawyer, Marion, O.; Joseph Sager, Celina, O.; M. L. Smith, Urbana, O.; J. W. Shook, Canal Winchester, O.; W. D. Sharp, London, O.; C. M. Shepard, 112 N. Fourth St., Columbus, O.; F. L. Stillman, 118 E. Broad St., Columbus, O.; Mark D. Stevenson, Everett Bldg., Akron, O.; Geo. Strobach, 639 W. McMicken Ave., Cincinnati, O.; P. F. Southwick, Sandusky, O.; R. H. Smith, Lorain, O.; O. H. Sellenings, 888 Oak St., Columbus, O.; John J. Silbaugh, Lancaster, O.; C. W. Stone, Lakeside Hospital, Cleveland, O.; Albert L. Steinfeld, 237 Michigan St., Toledo, O.; Robert M. Shannon, Piqua, O.; J. P. H. Stedem, Newark, O.; R. B. Taylor, 124 W. Eighth Ave., Columbus, O.; Wells Teachnor, 187 E. State St., Columbus, O.; J. K. Tressel, Alliance, O.; J. H. Tressel, Alliance, O.; Andrew Timberman, 112 E. Broad St., Columbus, O.; Robert C. Tarbell, 112 E. Broad St., Columbus, O.; F. W. Townsend, 1072 N. High St., Columbus, O.; Chas. E. Turner, 883 Mt. Vernon Ave., Columbus, O.; Wade Thrasher, Seventh and Race Sts., Cincinnati, O.; W. L. Towns, 512 E. Main St., Columbus, O.; J. Francis Trout, Lancaster, O.; Frederick C. Tyler, 1694 W. Twenty-fifth St., Cleveland, O.; G. M. Thomas, 1126 Neil Ave., Columbus, O.; Magnus A. Tate, 19 S. Seventh St., Cincinnati, O.; J. J. Thomas, 1110 Euclid Ave., Cleveland, O.; E. H. Tobias, Bowling Green, O.; Jno. A. Thompson, 628 Elm St., Cincinnati, O.; J. E. Tuckerman, 1856 Central Ave., Cleveland, O.; W. H. Tuckerman, 1387 E. 105th St., Cleveland, O.; L. A. Thomas, Middleport, O.; Chas. A. Thompson, Raymond, O.; Benetta D. Titlow, Springfield, O.; Calvin D. Todd, McComb, O.; W. R. Thompson, Troy, O.; H. D. Todd, Akron, O.; H. Whitehead, 2241 W. Broad St., Columbus, O.; Mary A. Wilson, Bowling Green, O.; W. H. Willcox, Vinton, O.; R. E. Williams, Alton, O.; E. M. Weaver, Everett Bldg., Akron, O.; W. Wire, 218 N. South, Wilmington, O.; H. E. Welch, Youngstown, O.; C. H. Willson, Idaho, O.; L. Woodruff, 2805 W. Broad St., Columbus, O.; J. A. Weitz, Montpelier, O.; E. J. Witdecorn, Kenton, O.; R. C. Wise, Millersburg, O.; F. D. West, Tiffin, O.; J. H. Wright, New Lexington, O.; G. S. Wellons, Barnesville, O. (guest); S. P. Wise, Millersburg, O.; E. A.

Wolt, Dennison, O.; J. W. Wright, American Savings Bank Bldg., Columbus, O.; C. H. Wells, Summit Station, O.; A. J. Hill, Canton, O.; P. M. Wagner, Canal Dover, O.; W. E. Wright, Newark, O.; R. H. Wilson, Martin's Ferry, O.; E. J. Wilson, Columbus, O.; Yeatman Wardlow, 106 E. Broad St., Columbus, O.; Starling S. Wilcox, 173 E. State St., Columbus, O.; J. W. Welons, 120 E. Broad St., Columbus, O.; Geo. C. Williamson, 256 Marshall Ave., Columbus, O.; Frank C. Wright, Grove City, O.; J. Park West, Bellaire, O.; R. E. Whalen, Youngstown, O.; F. L. Watkins, Bowersville, O.; A. B. Walker, Canton, O.; J. O. Wickerham, Sernan, O.; Geo. Waggoner, Ravenna, O.; J. M. Weaver, Dayton,

O.; W. H. Wirt, Loudonville, O.; W. W. White, Ravenna, O.; B. E. Watterson, Continental, O.; Frederick L. Wilson, South Solon, O.; Frank Warner, Northern Hotel Block, Columbus, O.; F. H. Yarnell, West Lafayette, O.; Geo. F. Williams, 196 E. Long St., Columbus, O.; E. A. Yates, Sidney, O.; Geo. F. Zinninger, Canton, O.; W. A. Yinger, Rosewood, O.; Thos. Grant Youmans, 112 E. Broad St., Columbus, O.; H. Rush Zeller, St. Paris, O.; S. St. J. Wright, Akron, O.; F. B. Whitford, Sedalia, O.; W. H. Woodworth, Delaware, O.; M. Grace Welch, 944 E. Long St., Columbus, O.; Roderick B. Wittich, Mt. Sterling, O.; L. A. Yocum, Wooster, O.

MEDICAL ECONOMICS

Judge Noah J. Dever, Portsmouth, member of Seventy-seventh General Assembly, befriended the medical profession of Ohio by advocating the Dever bill, or the codified medical practice act. It was through his efforts that important measures were enacted.

Milton E. Rathbun, Senator from Meigs, and Chairman of Committee of Medical Colleges, had in charge a number of bills of interest to the profession. His ability as a statesman doubtless commends itself to his constituents, as it does to representatives of the State Legislative Committee.

The large number (fourteen) medical bills passed by the Legislature is enough to satisfy public sanitarians until their enforcement can be accomplished. The proof of the pudding, in this case, is in the enforcement and not in the enactment.

The giant firecracker bill, by Mr. Bronson, did not get out of committee, because it was looked upon as small import. In the light of the Fourth of July fatal casualties due to this instrument of destruction, it is a very important measure, and should be carefully tucked under the wing of the Auxiliary Committee.

Every one of the profession owes a debt of gratitude to Mr. William Grinnell of Ravenna, member of the Seventy-seventh General Assembly. He introduced the advertising bill and worked for it. It passed the House and would have passed the Senate, but for the trickery of House member, Mr. Bassett of Toledo, who worked for

the quacks in committee to abuse the profession and block the Grinnell bill.

N. B.—This bill will be presented regularly until passed.

The deputy State health office bill was pocketed deep in the Senate Committee. The Auxiliary Committee will have to work long and hard to enact this measure.

The public comfort station bill passed both branches, but was strangled to death by a message clerk.

Senator West, of Logan, acts upon the wisdom of Disraeli, "The first duty of the statesman is the public health." He championed the vital statistics bill. Its passage alone would endear Mr. West to the medical profession. He fought for the pure food and drugs act and took a prominent part in maintaining medical standards as expressed in the medical practice act against the invasions of cult healers.

Mr. Crist, of Columbiana, championed the pure food and drugs bill and merits honorable consideration.

The status of medical practice regulation in Ohio is mirrored in the vote of the House of Representatives on the non-medical healing bill—31 for and 50 against the measure. Then votes changed in favor of the bill would have passed it. Now that the forces in opposition to medical laws, under the leadership of the time honored enemy of the medical profession, "Colonel Chaney," are to unite in passing a non-medical healing bill, the scale of ten votes will soon be

turned in favor of medical fads and fakes. This prophecy is based upon known facts. Medical men must face the issue or see the state regulation of medical practice degenerate to a travesty. The enactment of the Elson bill would be equivalent to the repeal of the medical practice act.

Medical legislation was opposed by many tricks of political and trade interests. The meanest of these were enacted by Geo. H. Bassett, Representative from Lucas county. He sidestepped the dignity of his public office to berate and belie the medical profession and to espouse the interests of the advertising quack by opposing the Grinnell bill. Will the Academy of Medicine of Toledo and Lucas County please take notice to send better Representatives to the next Legislature?

The Seventy-seventh General Assembly is at an end, but the medical profession goes on forever.

In the fight for the survival of the fittest of the bills at the close of the session, medical interests were advanced beyond expectation.

If aspirants to public medical positions or members of the Legislature secure a hot touch on the gridiron of Medical Economics notes, the blame must rest with a recitation of fact.

Recently a discussion took place in the operating room of a hospital concerning patents on surgical devices and instruments. The operator was using a table of his own design, and the anesthetist employed an ether-oxygen apparatus of his own pattern. These men did not want the revenue from patents. The traditions of the profession for free contributions to medical science were to be perpetuated as a matter of ethics and unhobbled progress.

A visiting physician denounced the altruistic claims of some medical men and endorsed the commercial interests of physicians in relation to publications, discoveries and inventions. The anesthetic apparatus and the surgical chair, he said, should yield a compensation to their inventors. The strictures placed upon the medical commercialism by the code of ethics was unwarranted and unjust, according to the speaker.

This calls attention to the difference of opinion that obtains concerning medical ethics and commercialism. Opinions differ with the education

and native peculiarities of the observer. The man who is uninterested and uneducated in medical economics and ethics necessarily fails to grasp the essential principles of medical organization.

Men who are born kickers and cynics, with a low opsonic ethical index, are not responsible for their iconoclasm. They claim the honor and benefits of the medical profession, but ignore the claims upon them made by the medical organization. Quackery does the same. They demand that the barter and sale methods of commercialism shall yield a patent right protection to the inventors of surgical devices. Another turn of the commercial kaleidoscope puts them in possession of patent medicines and secret methods. Quackery does the same.

The medical profession, as an organization, cannot follow such rules of practice. It exists primarily in the interests of the people. The support of medical standards by the state, as expressed in medical practice acts, state boards of health and other medical institutions is in evidence of this fact. Medical organization testifies to the same fact. Free contribution to the great storehouse of medical knowledge in all ages past characterize individual efforts of medical men. The products of scientific research and discovery are freely contributed to this fund. Medical ethics demand free contribution, free access and an honest statement of facts in the interest of the patient.

Everyone entering medicine inherits the fruitage of professional toil for ages past. This heritage conditions the preservation and amplification of medical art free from patent right revenue and secret methods.

The doctor who speaks kindly of medical commercialism necessarily denounces medical altruism. This same doctor may be up in scientific medicine, but down in organization work. He picks fights with his fellows and is not a member of the county society. That is the reason he runs his business on commercial lines.

The wise man does not need advice, and the fool ignores it.

The guinea pig is neither swine nor a product of Guinea, and the Christian Science doctrine is neither scientific nor derivative of Christ.

There is but a step from the sublime to the

ridiculous. Who signs the death certificate for the healers?

In a hearing before a committee of the Legislature two years ago, when the Christian Science amendment was under discussion, a "healer" was asked what he would do in case his wife had taken ten grains of morphine by mistake. He replied: "I would apply the law; I would pray."

Venereal infection would be treated by the same God-ordained law, but that law fails, it is granted, to recognize disease, even while it spreads like fire in a high wind. The treatment would be as effectual as in a case of poisoning.

Christian Science in the presence of the orthodox psycho-religion, medical healing of the Boston aggregation of clergymen and physicians, in the language of the miner applied to an exhausted mineral bearing vein, has "pinched out."

There is some compensation in the thought that the same cult, a rose by another name, bobs up serenely in the form of mechano-therapy, which has struck a new lead in the credulity of humanity.

O. S. Wood, of Hocking county, formerly assistant to Athens State Hospital, has been appointed a member of the board of trustees of that institution. This comes in response to the request of the Joint Legislative Committee. Like appointments for other benevolent state institutions is the policy adopted by Governor Harris. Physician trustees for these institutions is in harmony with their service, and the medical profession feels grateful to the Governor for his recognition of the fact.

Sectarianism in church and in medicine, like partisanship in politics, is fast disappearing with the higher conceptions of truth and duty. Human progress can no longer be fettered by dogmatisms or bosses. Intolerance and machine politics are in the last ditch. A united effort for the general welfare is being made.

In medical legislation progress is being made in both longitude and latitude. "Red Clause Chaney" has just observed the fact.

A good doctor makes a good politician—sometimes.

Medicine in politics—more the better. Politics in medicine—more the worse.

Commercialism in medicine is bad medicine.

A man could not belong to a band of bandits and not observe its organization rules. Many men belong to the medical profession and do not observe or know the rudimentary principles of medical organization. Outlaws have better organization than medical men.

Medicine is strong in organization on the side of scientific attainments, but weak on the side of medical economics. There is a reason. Scientific medicine is taught in colleges and exacted by licensing boards and reproduced in current literature and medical societies, to the neglect of the other factor of organization, summed up in the generic term medical economics.

To the food inspector all things are pure.

Any man under guise of medical authority who teaches that vaccination is worse than smallpox is a criminal.

Capacity for the professional good is often directed into channels of individual concern.

There were more meetings than meeting places. The Auxiliary Committee failed in Columbus, as at Cedar Point, to secure a place of meeting. The Joint Committee can do its best work meeting independent of other bodies. It is proposed that such a meeting be held early in order to transact important business.

The physician who adopts commercialism, as pitted against medical organization, cannot work for the public health defense without pay for every case of contagious disease reported to the health authorities. He advocates the financial protection of the physician, inventor of surgical devices and instruments by patents. The next step in selfishness includes patent medicines, trade interest and charlatany.

Medical economics draw the line between commercialism and medical organization. There is no middle ground. Every physician, from education or native bent, adopts one or the other of these principles of action. It is either medical

commercialism or medical organization which characterizes the conduct of medical men, medical fees, exorbitant and oppressive, or cut rate charges, contract practice, secret methods or inventions held for revenue, etc, fall within this purview.

CORRESPONDENCE

To the Editor: The following letter is self-explanatory:

860 East Main Street,
Columbus, O., May 19, 1908.

Dr. Walter M. Smalley, Upper Sandusky, O.:

Dear Dr. Smalley: I am writing to you as the secretary of your County Medical Society to detail a conversation with your Representative, Mr. C. F. Smith, on the 7th inst., which should be of interest to your society.

In conversing about medical legislation, Mr. Smith took occasion to say, in answer to a question: "The doctors ask too much. They are always asking for something. Now, my advice to them would be just to lay down for three or four years and not ask for anything; then they would be more likely to get something. They make the legislators tired, like the county officers. The county officers are always wanting something, and this year we just shut down on them—kicked them out."

The inference is, of course, that the doctors may meet the same fate unless they conduct themselves in a manner befitting their station as approved by certain legislators.

On my suggestion that each succeeding General Assembly is likely to have an increasing percentage of physicians, Mr. Smith warmed up to his subject and said that he himself had been elected over a doctor, and that the fact that his opposing candidate was a doctor helped Mr. Smith get votes. Continuing, he said: "The drugless healers will be licensed yet; you'll see if they aren't. The osteopaths are doing a most excellent work. Why, I know it in my own family. My wife suffered terribly for five years. She couldn't breathe. Her nose was swelled up awful, and she didn't get a good night's rest in more than five years." (Dacryocystitis?) "I tried all the doctors in my town, and they couldn't do anything for her. I paid your kind of fellows more than \$500 to try to get her cured, and I might as well have thrown the money in the fire. Then I took her to the osteopath, and he rubbed her nose and cured her for \$13; cured her to stay cured, and she has been

well ever since. And just for \$13. And to think of all the money I threw away on you fellows!"

Now, I am not writing this to suggest to the medical profession of your county to see to it that Mr. Smith shall not be returned. He tells me that he is not to be a candidate for re-election, having served his full allowance of this political honor, but I am writing to suggest that we as a profession (myself as much as any one else) show about as much sense in politics as the ostrich in danger, which is said to stick its head into the sand so as not to see the danger. If we could (and would) "see ourselves as others see us," we should be better prepared to give battle at effective points and in opportune measures.

It seems to me that we as a profession owe a debt of gratitude to Mr. Smith for his clarifying deliverances and that should we not profit by them we should be derelict in our duty to the public. We cannot accomplish much unless such sentiments and their authorship be known broadcast among physicians. We have much to do in the way of teaching our legislators in the things that pertain to the public health.

It goes without saying that herein is no criticism of the professional skill of our brethren in Mr. Smith's town. Every physician will know what allowance to make for the ex-legislator's statements. Sincerely and fraternally yours,

ALBERT S. BARNES.

The expiratory, alar or phthisical chest is characterized by a bilateral contraction. It is almost always congenital. The tuberculous chest is narrow and flat, especially at the upper part. The intercostal spaces are wide; the ribs incline downward from the sternum, and are bent at a sharp angle in order to come back to the vertebræ. This elongation and sloping from the sternum makes the costal angle acute. The antero-posterior diameter is shortened, and the scapulæ stand out like wings.

Battle's sign, when present, is pathognomonic of a fracture of the base of the skull (posterior fossa). Blood accumulates beneath the deep fascia and produces discoloration in the line of the posterior auricular artery, the ecchymosis first appearing near the tip of the mastoid.

Garel's sign can be demonstrated when an abscess forms within the antrum of Highmore. The antrum on the side of the abscess cannot be transilluminated by the introduction of an electric bulb into the mouth.

CURRENT MEDICAL LITERATURE

ILL EFFECTS FROM THE SUDDEN WITHDRAWAL OF TOBACCO IN SURGICAL CASES.

Bangs (*Med. Record*, March 14, 1908, p. 421), cites three cases where ill effects undoubtedly followed the discontinuance of tobacco after surgical interference. All occurred in inveterate smokers. The condition simulated extreme shock; ashen face, clammy sweating, feeble response to questions, shallow and labored respiration, and feeble, fluctuating pulse. In each instance the condition improved immediately on being required to smoke. Of one patient he says:

"In a few seconds his usual color came back to his face, the sweat stopped, his heart beats became stronger and regular, finally settling down to about eighty, and before he had smoked one cigarette he pulled himself up in bed upon the pillows. This was all that I did for him. His return to life was rapid, and my counsel, that acute illness, whether surgical or otherwise, was not the time for him to give up his tobacco, was readily accepted."

THE CHARACTER OF PAIN A DIFFERENTIAL POINT IN DIAGNOSING BETWEEN DUODENAL ULCER AND GALLSTONES.

The cardinal symptoms are similar in both conditions—pain in right upper quadrant, vomiting, and gas. Haines (*Surg. Gynec. and Obs.*, March, 1908, p. 278), relies chiefly on the nature of the pain, which in ulcer is less sudden and severe, burning or gnawing rather than boring or lancinating, and relieved by food or by eructation. The vomiting with gallstones is more persistent and less in quantity, and does not afford relief to the pain.

BORIC ACID POULTICE.

Mix a tablespoonful of cold water starch and a teaspoonful of boric acid with a little water; add the mixture to a pint of boiling water and stir the whole until a uniform mucilaginous mass is formed. When cold spread the jelly thickly on cotton and cover it with a piece of muslin. Then apply to the part. A good plan is to put on the poultice at bedtime and to remove it in the morning. It is useful in acute and subacute skin affections to cleanse and soothe prior to the applications of ointments, etc.—*The Hospital*, via *Med. Record*.

FORMALDEHYDE IN ALOPECIA AREATA.

"J. J. McInerney reports treating a young girl who had a circular bald patch of about three inches in diameter on the scalp at the side of the occiput. The patch was perfectly hairless, smooth, and shining.

The treatment consisted in painting it with a 20 per cent. solution of formaldehyde. This was done every day for the first week or two, until signs of inflammatory reaction appeared. The treatment was then suspended, and a sedative ointment applied. When the inflammation subsided the formaldehyde was again continued, stopping the application as soon as inflammatory trouble appeared. This routine of treatment was persevered in for about six or nine months. About this time a growth of hair made its appearance, continued to grow, and in every way corresponded with the surrounding hair. Twelve months after treatment the growth of hair is perfect."—*British Med Jour.*, Jan. 25, 1908, via *Merck's Archives*.

GASTRIC MUCUS NECESSARY FOR NORMAL GASTRIC FUNCTION.

Kauffman (*Amer. Jour. of Med. Science*, Feb., 1908), has observed that gastric mucus is necessary to proper gastric function. Its lack may cause symptoms of hyperacidity to appear, even though the stomach contents show low acidity. Silver nitrate, internally, stimulates the formation of mucus and often relieves the trouble. He believes this is the reason that gastric ulcer is benefited by the administration of silver nitrate.

IODINE OF VALUE IN TREATMENT OF GONORRHEA.

Recently there has been a renewed interest in the use of iodine in various suppurative conditions. Thus we are periodically reminded of the things we have forgotten. Iodine is undoubtedly a good, non-corrosive, penetrating antiseptic, and if the strength be tempered with due judgment is a valuable agent for the irrigation of pus-discharging cavities and sinuses. It is interesting to note the following use of iodine in the treatment of gonorrhea:

"Dr. James K. Blackburn, of Pulaski, Tenn., in *Southern Medicine and Surgery*, says: Since January, 1906, I have treated twenty-two cases of gonorrhea in all stages of the disease, just as they came to my office (all white males), with irrigations of iodine. I used Valentine's irrigator, the strength of the solution and number of

irrigations each day must necessarily vary according to the stage of the disease. I used from one to four drams to a quart of hot water. I used in each case an alkaline diuretic to keep the urine bland and unirritating. There is no pain with this method of treatment, and the cases run a short course as a rule; the shortest course run by any of these cases was five days, and the longest period that the discharge continued was two weeks. I had only four cases, where there were any complications, and they were very mild. I consider iodine one of the safest and best antiseptics we can use in venereal work; it is also a mild astringent in this dilution."—Via The Medical Summary.

SIMPLIFIED TECHNIC FOR MOSETIG FILLING FOR BONE CAVITIES.

"Mayrhofer comments on the rapidity with which the Moseitig filling cools and hardens before it can be fitted into the cavity, thus failing its aim, which is to fill every crevice of the cavity with a fluid mass which solidifies later. He uses a filling made according to the formula: Iodoform, 10 parts; sesame oil, 15 parts, and spermaceti, 30 parts. This is kept in an ordinary unguent jar. A small metal rod is heated in a flame and some of the hard mass in the jar is stirred and worked soft with the hot rod. The amount to be used is taken up on a heated spatula and pushed into the cavity with another heated spatula. By this means the filling is softened and kept soft and the cavity filled with the soft mass with no fear of its hardening during the manipulation. He has never applied this technic to large cavities, but has found it admirably adapted for plugging small cavities, always otherwise adhering strictly to Moseitig's directions. They were summarized in The Journal, Feb. 18, 1905, page 583."—Wiener klinische Wochenschrift, March 5, No. 10, pp. 309-344, via J. A. M. A.

CARE OF THE TEETH AN IMPORTANT PROPHYLACTIC MEASURE AGAINST DISEASE.

Power (J. A. M. A., Feb. 15), insists that proper care should be given the teeth of women during pregnancy. It is his "custom to make a thorough physical examination of the patient so as to adapt the measures employed to her capacity of enduring the strain incidental to all dental operations; then to extract all broken-down roots under local anesthesia, as possible sources of trouble, to clean the mouth thoroughly and make arrangements for future monthly inspections which will enable him to attend to any

conditions that may arise and will tend to cause the patient herself to take due care of the teeth, knowing they are going to be inspected." And in all cases where there is vomiting he advises the use of an alkaline wash to offset the acidity of the month due to the acid vomitus.

Baker (Bost. Med. and Surg. Jour., March 26, 1908, p. 401), says:

"Dental caries, or tooth-rot, is the most prevalent disease that attacks man, and is a pre-eminent factor in the causation of other diseases in the human body. This initial disease is the cause of great physical suffering, to check which many millions of dollars are annually spent in this country. Thus, to prevent dental caries would be a great financial saving, and a very great step in preventive medicine."

Certainly every physician should see that their patients know that their teeth should be cared for by a dentist. Indeed it is good advice to urge all persons to have their teeth inspected at least twice a year.

AN EFFICIENT, SIMPLE TREATMENT FOR STAMMERING AND STUTTERING.

The Jour. Med. Soc. New Jersey gives the following account of Dr. Scriptures' method:

Stuttering and stammering are caused by cramps and excessive tension of the muscles of repression, and of those in and around the larynx, and those of enunciation. Normal voices, rise and fall in speaking the ordinary phases. In nine cases out of ten stutterers do all their talking on one tone, owing to the contracture of the laryngeal muscles. By introducing melody into the voices the attention is directed away from the act of speaking and the stuttering ceases.

"For instance, a stutterer never stutters when he sings, because singing is to him an entirely different means of expression from that in which he finds difficulty. * * *

"If his patient is not particularly intelligent, he first gets him to sing sentences or some familiar melody. In this way the patient gets the idea that his voice must go up and down. Then he is taught to speak sentences in which he has to slide his voice. In the first lessons this sliding of the voice is made excessive, in order to get away more completely and quickly from the ordinary monotonous speech of the sufferer. The patient is taught to say 'Good morning,' 'How do you do?' 'Give me a glass of water, please,' etc., all with excessive melody. Finally he is taught to introduce melody into all his conversation. * * *

"Dr. Scripture also illustrated the methods of

correcting the speech defects due to another cause, namely, negligent nerve action. To cure lisps a probe is inserted just between the teeth and over the tip of the tongue. This makes the narrow air passage which is essential to the sound of 'S.' To cure those who say 'D' and 'T' instead of 'TH,' the probe is inserted at the corner of the tongue, and to correct the use of 'V' instead of the sound of 'W,' the probe is pressed on the under lip.

"All these methods can be successfully employed by the general practitioner in the course of his ordinary office routine. Only the difficult cases need the aid of a specialist."

HOW TO PALPATE THE TUBES.

Boldt, in an article on pelvic infection (Amer. Jour. Obs., etc., April, 1908, p. 488), gives some valuable points on methods of palpating the tubes. The elbow of the examining hand should be steadied on the examiner's knee and the knuckles of the unused fingers should press into the nateal fold, which will allow of sufficient reach unless it is desired to palpate the visceral ends of the ureters. In this way less discomfort is given the patient than when the usual "text-book" position of the knuckles is assumed. "Whenever the local conditions are such as to make it consistent to examine with two fingers *per vaginam*, this should be preferred.

"Frequently, it is of advantage to separate the distal parts of the examining fingers, so that the middle finger terminus is behind the index finger terminus; and then to push the pelvic contents upward toward the external hand, so that the vaginal portion of the cervix is held between the two vaginal fingers.

"The palpation of the uterine adnexa should be begun at the uterine end, which is usually of more solid consistency. Each respective adnexum can then be traced toward the fimbrial termination.

"It is not possible to map out the outlines of acutely inflamed tubes without resorting to an anesthetic, because of the extreme sensitiveness of the tubes and the co-existing local peritonitis. As a rule we can palpate only an indefinite swelling in the location of the tubes. We must wait until the acuteness of the attack has passed away, before we can trace more definite outlines.

* * * * *

"The only difference that can be positively determined, between a normal Fallopian tube and one affected with catarrhal inflammation, is that the latter is sensitive to touch when palpated.

"When, however, the tubes are in a condition of interstitial purulent inflammation, the uterine end can be felt to be of larger diameter than the normal, and of firmer consistency. * * *

"From the uterine end the palpation should proceed toward the abdominal end, where it may be ascertained that the tube increases in diameter. Frequently its tortuousness can be felt, and its hardness determined; adhesions also can be detected when present, as is usually the case. The sensitiveness to touch depends on the degree or acuteness of the inflammatory process. * * * The ovaries are seldom separately palpable in the interstitial purulent form of salpingitis whereas in the catarrhal variety they can usually be felt separately.

"I have said that we should always begin palpation at the uterine end of the tube; while this should be the usual procedure, it is frequently impossible when we have a posterior uterine displacement. Occasionally, however, it may be done even then, by pushing the pelvic organs upward toward the external hand. Sometimes, also, when the bimanual method fails to establish a diagnosis, we may succeed by resorting to the recto-vagino-abdominal method. In fact, this triple method of examination should never be lost sight of in gynecologic affections, since we can frequently make the diagnosis by its help, when we have failed with other means. * * *

"When an appendicitis calls for differentiation from a right-side salpingitis, we must rely chiefly upon the objective symptoms, because the subjective symptoms are frequently similar. If one palpates a diseased tube and finds that pressure upon it causes an increase in the pain of which the patient complained, but can find no marked sensitiveness over the appendix region, and no induration or marked resistance to that locality, appendicular affection may be excluded. * * *

"In suspecting a pelvic infection to be of tuberculous character, it is well to look for tubercular lesions in other parts of the body. A tubercular salpingitis is not likely to cause so much local disturbance as does one of gonorrheal origin. Moreover, if we palpate a tubercular tube before it has become much distended, it imparts to the examining finger a firmer consistency, and the uterine end is apt to be more or less nodular. If ascites is present, we are sure that the condition cannot be due to a puerperal or a gonorrheal infection, and it remains for us to determine whether there is a primary malignant neoplasm of the tube, which is of unusually rare occurrence.

"If, in any case, we find in the secretions, either of the uterus, the cervical canal, the urethra, or

the external genitals, a specific microorganism on microscopical examination, the diagnosis is likely to be at once cleared, unless, as may happen, tuberculosis and gonorrhea are coëxistent."

AN IMPORTANT POINT IN CHLOROFORM ANESTHESIA.

Abbe, in a comparison of chloroform with ether anesthesia (Amer. Jour. Obs., etc., April, 1908, p. 547), after noting that respiratory failure occurs with both anesthetics, says: "Accidents can only be avoided by careful watching, paying special attention to the efficiency of the breathing. Respiratory motions of the chest and abdomen do not always mean that sufficient air is entering and leaving the lungs.

"In the case of chloroform it would seem that the dangers are due to the slowness with which the drug takes effect as compared with the more *volatile* ether, a position contrary to that generally advanced. The ether enters the blood and is eliminated much more rapidly than the chloroform, although a greater percentage of ether in the blood is necessary and to attain that more ether must be given. On the other hand chloroform is absorbed less rapidly and excreted more slowly than ether, and on account of the slowness of absorption and transmission of its effect to the central nervous system as soon as the patient begins to relax there probably is enough chloroform in the blood and on the mask to carry the patient to complete anesthesia. At that point the chloroform should be withheld for one-half to one minute and then proceeded with more slowly. * * *

"The same late cumulative effect of chloroform is seen during the course of the operation. The patient reacts and is given more chloroform, even after he is quieted. Then the chloroform on the mask and in the blood overwhelmed his central nervous system."

[This explains, as Abbe remarks, the manner of chloroform's sudden toxic effects and points the direction in which we must take care when giving it, for ether is not always the anesthetic of choice, though its *immediate mortality* is less than chloroform's in the hands of the careless.—Ed.]

A SIMPLE TREATMENT FOR CORNS.

Griffith (Amer. Jour. Derm., April, 1908, p. 163), gives the following method of removing corns which for simplicity could hardly be surpassed:

"The method described depends upon the macerating power of ordinary adhesive plaster to

effect the result sought. A strip from three-eighths to one-half of an inch (1 cm.-1.25 cm.) in width and four to six inches (10 cm.-15 cm.) long is to be applied in spiral fashion to the affected toe covering it from neck to nail. The tightness of the application deserves consideration to avoid compression. However the feelings of the patient when stepping upon the foot will serve as an adequate guide in this matter. Instructions to cut through the plaster lengthwise or to soak off the entire dressing by immersion in a hot water foot bath afford ample protection in cases of unexpected infection. Soaking the foot for ten to twenty minutes in water at a temperature of 110° F. with gentle removal by rubbing with a piece of sterilized pumice stone or forceps of the crown of hardened epidermis shortens the time of treatment. Properly applied the plaster strap dressing described should afford relief from the moment of its application, and may be worn continuously for from one to six or eight weeks—bathing seeming not to affect the adhesive properties of the plaster after it is once set. Removal of the dressing at the end of an adequate time reveals the corn completely freed when it may be picked out entire by means of a dressing forceps or after an additional soaking. A wisp of absorbent cotton held on by means of a narrow adhesive strap may be subsequently worn for a few days."

THE TREATMENT OF INFLUENZA BY ESSENCE OF CINNAMON.

McKee (Med. Bul., April, 1908, p. 127), gives the following interesting review:

"This remedy is successfully employed by Ross (Le Semaine Medicale) in reducing pyrexia and asthenia. The remedy should be given in 12-drop doses in water, and a second and third dose after one and two hours respectively. Two hours after the third dose give 10 drops and continue this every two hours. When the pyrexia has disappeared it is sufficient to give 10 drops, three times a day, for the following day or two. If given at the onset, say the first three or four hours, the essence of cinnamon seems to abort the disease, at least the hyperthermia, in twelve hours. If the treatment is begun at a later stage, the temperature does not become normal till twenty-four to thirty hours. This medication modifies the asthenia to such a degree that the patient may, if necessary, go out and attend to business on the second or third day. However, it is wiser to wait till there has been two or three days of absence of fever. The timely administration of the essence of cinnamon considerably

reduces the duration of the fever and asthenia of this disease which conditions usually last from four to eight days, and the asthenia frequently much longer. The preparation should be made from the bark, that from the leaves being much less efficient."

SOME THINGS TO BE REMEMBERED IN HANDLING SICK CHILDREN.

Cooke, in discussing the control and examination of children, calls attention to some fundamental things often forgotten by older, and often not even thought of by younger physicians. He says (*Virg. Med. Semi-Monthly*, April 24, 1908, p. 25): "Of course, an infant too young to fear or notice, or a child of a quiet phlegmatic temperament, or one that is too sick to object to being handled, can be examined as soon as approached with the same regularity and precision that one would examine an adult. But we have an entirely different proposition to deal with when called upon to examine children who are nervous, excitable, timid or who are spoiled and vicious.

"In dealing with the first or more difficult class of the cases, much deliberation in the way in which we approach the child is necessary, and much tact in speaking to the child is required. In the second class, or the spoiled and vicious, no time can be gained by delaying examination; the sooner it is made with firmness and persistence the less trying it will be, both for child and mother.

"Let us remember this fact in dealing with children of all classes, that the greatest amount of information is to be obtained by observation; so that the close study of symptoms must frequently displace the more exact measures of diagnosis, which are useful in adult life. * * * "As a rule, it is not difficult to win children, even when sick, but certain qualities and procedures are essential to success. First, never deceive a child; be gentle, but firm and positive in action; spend a few moments in getting acquainted. If you have to do a painful or a disagreeable thing, tell the child, if he asks, that it is painful, but that it must be done to get him well and that other boys or girls have gone through the same thing. It is often a good plan to offer some reward for good behavior, and be sure to give it. Never promise a child a thing and not give it; they at once lose confidence in you. Take pains to save pain. * * * You should not, as a rule, interrupt when the history is being given by the mother or nurse; give them full scope, and in the meanwhile the doctor should be studying two

things—this history of the child as given and the temperament of the one who gives it. * * * If the patient is asleep when you arrive, don't allow the mother to awaken it until you have made some observations—counted respirations, pulse, taken temperature, etc. Remember the rectum is reliable for temperature. If possible, auscult and percuss also while the patient is asleep, and, if not, avoid using too many instruments during the first visit. * * * The cry of hunger is irregular and fretful and usually ceases when the child is fed. The cry of indigestion is very similar, but feeding aggravates, rather than lessens the crying. The cry of pain is a sharp and piercing cry. * * * Always have an infant undressed before deciding what the trouble is. The prick of a pin has more than once caused convulsions."

THE TREATMENT TO REMOVE WORMS IN CHILDREN.

Hutchinson (*Merk's Archives*, April, 1908, p. 117) outlines the treatment as follows:

To get rid of tapeworm (*tænia*), the patient should remain in bed twenty-four hours; take a cathartic of castor oil, liquorice powder or calomel the night before, and take the anthelmintic on an empty stomach (no solid food, but tea and toast may be allowed) in the morning. Male fern (*oleoresin aspidii*), 15 grains in capsules, is given every quarter of an hour until four doses are taken. This is followed in an hour or two by an effervescing saline or castor oil. It is best to pass the worm into a vessel containing warm water. The worm should be examined to see if the head has passed. If all has not passed, it is best to wait awhile before again trying to rid the worm. The essentials are rest, starvation, purgation, full doses of an anthelmintic and care in the way in which the worm is received when passed. Further he says:

"Personally, I am rather afraid of giving male fern to a little baby. I prefer calomel, and perhaps small doses of santonin as well. Both the cases I have had had calomel only and soon ceased to pass segments, though I had not the opportunity of searching for the head."

[It is well to remember that black coffee is an efficient antidote for undue depression from a dose of male fern.—Ed.]

In case of round worms (*Ascaris lumbricoides*) he advises:

"If a child passes a round worm, it should be at once put through a course of treatment, for these animals often hunt in couples. Fortunately,

round worms are more easily got rid of than tapeworms.

"Santonin is the best remedy, for it is effective and safe. Among numerous other anthelmintics, thymol has been a good deal used. Santonin should be exhibited as a powder in this combination:

"Santonin	gr. $\frac{1}{2}$
Calomel	gr. $\frac{1}{2}$
Sugar	q. s.

"Give one such dose for every year of the child's age every night for three or four nights. So much, then, for round worms. Their treatment is simple, and when once the worm is seen there is no anxiety as to any of it having been left behind."

He believes that thread worms (oxyuris) do not thrive in a healthy intestine and that the diseased mucosa is a predisposing condition rather than a result of the presence of worms.

"To get rid of the worms, it is necessary to deal with this underlying condition. One can do this partly by attention to diet, partly by medicines. It is very important to reduce the starchy constituents of the food, such as raw fruit and vegetables, bread, sweets, puddings and sometimes even potatoes. You must also make sure of a sufficient daily action of the bowels, for which there is nothing better than

"Pulv. Rhei	gr. v
Sod. Bicarb.	gr. v
Hydrarg. c. Creta.....	gr. j

which is peculiarly efficacious in this condition of the alimentary canal. The value of this powder is probably due to the rhubarb, which has not only an aperient but also an astringent and tonic after action on the mucous membrane. The gray powder has also a share in the result, for when it is omitted the combination is certainly less successful.

"The powder should be given regularly for a considerable period, the aim being to produce one loose motion every morning. You may also with advantage give alkalies and bitters before meals. * * * To deal with the worms locally, various injections have been proposed. Infusion of quassia is an old fashioned prescription and a very good one. Solution of common salt, in the proportion of an ounce to the pint, is another; and infusion of garlic is sometimes very effective. These may be safely used every night for one night. The following may be injected every other night for three doses with good results:

"Oil turpentine	3ij
Santonin	gr. ij
Starch mucilage	3vj

"There are two different systems of giving an injection for these worms. Some physicians advise a large injection, so as to reach as far up the bowel as possible. Others prefer a small one, that it may be retained as long as possible. I am in favor of small injections, which have the advantage that they cause much less discomfort, as the process is one which is frequently repeated. This is an important point when dealing with young children.

"The injection should be given warm and quite slowly through a funnel. The pelvis of the patient should be raised. An injection of six ounces when given thus may in a child reach the transverse colon by reversed peristalsis. This small quantity is safer and less likely to be painful than the larger doses; in addition, it is far less likely to damage the intestine, whose wall is thinner and more easily ruptured than is often thought.

"It is well to order a little weak white precipitate or nitrate of mercury ointment for local application, to relieve itching and to prevent wandering of the worms.

"I repeat that local measures are less important than attention to the state of the intestines, for if the worms are only killed off locally they will certainly come back, a process which has been known to continue for years."

BOOK REVIEWS

PROGRESSIVE MEDICINE, VOL. X, No. 1. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Emory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Lea & Febiger, Philadelphia and New York.

The subject of the surgery of the head and neck is reviewed by Chas. H. Frazier in an exceedingly thorough and critical manner. The literature of the past year has been carefully considered, statistics quoted and practical deductions drawn. He reviews at length the work of Krause and Borchardt as notable contributions to the subject of cranial surgery.

Surgical relief of epilepsy remains problematical, but advances have been made in repairing results of trauma, the removal of tumors and the relief of neuralgias.

The consideration of the thorax is quite general. The reviews of the surgery of goiter, empyema, emphysema, cardiolysis and massage of the heart are interesting and judiciously selected.

R. B. Preble discusses infectious diseases and

brings out much of interest, more especially in regard to cerebro-spinal fever, diphtheria, pneumonia, rheumatism and typhoid fever. In diphtheria considerable stress is laid upon the length of time the bacillus remains in the throat. The opsonic treatment of pneumonia is mentioned as in the trial stage. In regard to rheumatism, he concludes that the etiology is still unsettled. He gives some interesting statistics as to complications and quotes Kemperer's results with the Dier treatment as of value, but not equal to the use of the salicylates where the latter may be used.

Under the department of diseases of children Crandall briefly discusses a number of conditions of more or less general interest. The most space is given to a good description of status lymphaticus, with experimental work by Howland.

The section on rhinology and laryngology contains a number of reviews and abstracts of excellent articles of interest to practitioners of this specialty.

OUTLINES OF PRACTICAL HYGIENE by G. Gilman Currier, M. D., Associate of the American Society of Civil Engineers, Fellow of the New York Academy of Medicine, Member of the New York Pathological Society, formerly Visiting Physician to the New York City Hospitals, Member of the American Public Health Association, etc. Fifth edition, revised and enlarged. E. B. Treat & Co., New York City. 1905.

This is the fifth edition in twelve years of this popular treatise. Designed for the use of medical students and busy practitioners, it avoids technicalities where possible and deals with its subject in a graphic and practical though rather elementary manner.

It is well known from its previous editions, and, while somewhat enlarged, is not very much altered from its predecessors.

NERVOUS AND MENTAL DISEASES FOR STUDENTS AND PRACTITIONERS. By Charles S. Potts, M. D., Professor of Neurology in the Medico-Chirurgical College of Philadelphia; Neurologist to the Philadelphia Hospital; formerly Associate in Neurology in the University of Pennsylvania. Second edition, revised and enlarged. Lea & Febiger, Philadelphia and New York. 1908.

The second edition of Dr. Pott's Manual on "Nervous and Mental Diseases" commends itself to the student and medical practitioner.

The new edition is an improvement over the former one in that it is larger by over 100 pages, excellent new illustrations and plates have been

added, and, though necessarily condensed, modern neurological thought is expressed throughout. The book is well written, and the classification of both mental and nervous diseases is good.

The chapter on cerebral localization is well illustrated and contains the latest investigation and teaching upon the subject.

A few pages are devoted to lumbar puncture, with instructions for the operation, with advanced ideas as to the value of such procedure in diagnosis.

We regard this book as one of the best of its kind published.

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index, 1908—Twenty-sixth Year. Cloth, \$3.50. E. B. Treat & Co., New York City.

This volume continues the same plan maintained for so many years, which has proven to be of considerable value to those who may not be familiar with its scope, we would say that it embraces nearly the entire field of medicine, and while necessarily confining its treatment of the various topics to brief reviews, nevertheless the main points are given, and the references show where the original articles appeared. The great number of subjects considered precludes any adequate reviewing in the space permitted. Of the larger articles, Young on Fecal Examinations, Schmieden on Treatment by Hyperemia, Hieman on Cerebro-Spinal Meningitis, and Phillips on Tuberculosis, are all very good.

New surgical measures are described, new technique depicted, new methods of diagnosis given, new symptoms portrayed and new methods of treatment detailed.

In these days of prolific publications it is impossible to keep up with the great amount of material brought out; therefore a resumé of the year's work such as this is of considerable practical utility and of great value to the busy practitioner.

It is profusely and handsomely illustrated with excellent cuts and many colored plates.

"THE SEXUAL INSTINCT," by James Foster Scott. E. B. Treat & Co.

This work is an excellent one. It seems to be intended more for the lay reader than for the physician, although the latter may derive both pleasure and instruction from its perusal.

The language is good, the subject treated in a practical manner and is a clear exposition of matters of vital interest.

COSMETIC SURGERY. The Correction of Featural Imperfections, by Charles C. Miller, M. D. Including the description of a variety of operations for improving the appearance of the face. 136 pages; 73 illustrations. Prepaid, \$1.50. Published by the Author, 70 State St., Chicago, Ill.

Dr. Miller says that professional apathy for the correction of featural imperfections cannot prevent the development of this specialty, as the demand for this kind of service is too great on the part of the public. The numerous operations which the author has found useful in the correction of featural imperfections are concisely detailed. The various surgical procedures are made painlessly after infiltration—the technique of which is described. The book contains seventy-three illustrations; is interesting, and gives an excellent idea of the surgical principals which have yielded such satisfactory results for Dr. Miller.

PRINCIPLES AND PRACTICE OF MODERN OTOTOLOGY. By John F. Barnhill, M. D., Professor of Otolaryngology and Rhinology, Indiana University, School of Medicine, and Ernest D. Wales, B. S., M. D., Associate Professor of Otolaryngology and Rhinology, Indiana University, School of Medicine. Pp. 575, with 305 illustrations. Cloth. Price, \$5.50. Philadelphia: W. B. Saunders Co. 1907.

This is a handsome, well printed volume containing numerous illustrations, chiefly made from original drawings, many from especially prepared dissections. Those things which seem most to require illustration are represented in a practical way. It is divided into many short chapters, which is an advantage to the busy student or practitioner, since he can usually complete the reading of a short chapter in the little time often at his disposal. It also serves to impress him with the varieties of diseases and of subjects in this branch of medicine, and aids him in gaining a systematized knowledge of it. The chapters on diseases of the external ear and labyrinth are on an equality with those in other good text-books. The influence of pharyngeal conditions as causes of ear diseases is well described. The suppurative diseases of the middle ear and mastoid cells and the intracranial complications of ear diseases have received most careful exhaustive and practical consideration. The authors plainly describe, in detail, the modern methods of treatment, especially those of a surgical nature. Throughout the work they emphasize the necessity of as much care in diagnosis of ear disease as would be exercised in the diagnosis of disease of any other organ or part of the body. A thorough student of this volume will not be inclined to guess work

in diagnosis nor empiricism in treatment. They correctly insist that there is always a time in the history of nearly all ear cases in which cure or great benefit will result from proper treatment, but that this is especially in the beginning and not after years of poor treatment or neglect. The book is practical and sound in its teaching, and in the first rank as a guide for the student of otology.

TRAINED NURSES AT SEA.

One of the great transatlantic steamship lines has added trained nurses to the medical personnel of its vessels. This opens a sea career for the trained nurse. Undoubtedly other lines will do the same, and the nurse will become as indispensable an adjunct to the first-class passenger vessel as the ship's doctor.—New York State Journal of Medicine.

Prostatectomy has come to stay and the patients should have its advantages before organic renal and bladder changes develop.—Murphy.

Any injury to the hip followed by disability should suggest the possibility of a fracture of the neck, and requires an expert examination aided by an X-ray photograph.—Walker.

For my part I prefer an imperfect diagnosis (hip fracture) for the surgeon and a perfect limb for the patient, rather than a perfect diagnosis for the surgeon and a useless limb for the patient.—Post.

Old age does not retard osseous union after a fracture, as has been erroneously supposed; the reparative process remains the same as during adult life.—Gurlt.

Dislocations of the shoulder joint constitutes about from one-half to two-thirds of all dislocations.—Senn.

Hutchinson's teeth are pathognomonic of congenital syphilis. The temporary teeth show a developmental defect; are dwarfed or too narrow, and have discolored notches in the free cutting edge of the upper central incisors. The teeth stand well apart and are irregular.

Unremitting watchfulness is always essential in the successful treatment of fractures. Negligence is inexcusable and often leads to legal complications.—Senn.

COUNTY SOCIETIES

FIRST DISTRICT

"Removal of Foreign Bodies from the Esophagus," was the subject of a paper by J. W. Murphy before the Cincinnati Academy of Medicine, May 4, 1908. The question of the removal of foreign bodies accidentally swallowed and lodged in the upper respiratory or digestive tract is of interest to the general practitioner, as well as the specialist. The diagnosis is not always easy, the history of the case being about all we have to depend upon. Many attempts have been made to overcome the difficulties of diagnosis. The X-ray is of special benefit where the foreign body is of a metallic nature. Doubtless many cases of obscure illness in children are often caused by the presence of an unsuspected foreign body in the esophagus or trachea.

By means of Chevalier Jackson's modifications of Killian's tubes, in which the electric light is in the distal end of the tube, the foreign body can be quickly located and generally successfully removed.

The split speculum of Dr. Jackson is the key to the situation, as by means of this speculum the entire passage of the bronchoscope is under the direct eye of the operator. Much of this work can be done under local anesthesia, and in a few years it will be a routine office examination. No force should be used in passing the tube. The patient may be in the sitting or reclining position. In the reclining position the head and shoulders of the patient must be drawn well over the edge of the table and the head held by an assistant trained for the purpose, as success or failure will depend upon the manner in which the head is held.

By means of the split speculum a gag is not necessary. As soon as the tracheal opening is exposed it must be cocaineized in order to reduce the reflex cough. Quite a large tube can be passed down the trachea as far as the bifurcation; below this point smaller and longer tubes must be used. In passing the esophagoscope or gastroscope the cricoid cartilage is lifted up with the index finger of the left hand, exposing the right pyriform sinus, through which the tube should pass without the least resistance.

As soon as the tube has passed below the cricoid cartilage the obturator must be removed, and the balance of the passage must be by sight.

On inspiration the esophagus opens up ahead of the tube, and as it does so the tube is gently pushed forward into this opening. Care must be taken to use absolutely no force. The tube is

held in the right hand in much the same manner as you would grasp a billiard cue, the little finger of the right hand being sufficient to keep the obturator in position. Any force too strong for this should never be used. You can always tell when the stomach has been entered, as the lining membrane is much redder than that of the esophagus.

Passage through the diaphragm is painful, and deep anesthesia should be resorted to. A number of foreign bodies which had been removed from the trachea and esophagus were exhibited, together with a radiograph of a lung filled with shot, showing the bifurcations of the trachea, also of stricture of the esophagus, taken by means of bismuth mixed with water and lodged at the upper part of the stricture; also the radiograph of a pin lodged in the right bronchus.

SECOND DISTRICT

A meeting of the Darke County Medical Society was held April 21. Twenty-seven members were present. Robert Carothers, of Cincinnati, was present and addressed the society on "Some Considerations of Non-Tubercular Affections of the Sacro-Iliac Joint." Discussed by Drs. Rike, Monger and Baker.

J. O. Starr then favored the society with an excellent paper on "The Hyperemic Method of Bier," which was mainly a detailed report of two cases of tuberculosis of the knee joint treated by that method with highly satisfactory results.

J. E. Monger reported having removed 132 ounces urine at one catheterization.

A. M. Brandon, of Barnesville, was admitted to membership.

The society then extended a vote of thanks to Hon. A. A. Judy, Representative from Darke county, and Hon. J. E. Russell, State Senator for this district, for the interest they have manifested in all so called medical bills. The secretary was directed to notify them of this action, and also to request their support of the pure milk bill, known as Senate Bill No. 359, without the amendment which seeks to exempt Hamilton county.

A joint meeting of the Shelby and Miami County Medical Societies held at Troy, Ohio, on April 2 was one of the most interesting meetings held in Miami County. About fifty physicians of the two counties were assembled together with visiting physicians from Columbus, Springfield

Dayton and Urbana. The following program was carried out:

"Echinacea as a Therapeutic Agent," J. H. Barker; "The Relation of Chlorides in Treatment of Edema," J. H. Lowe; "Puerperal Eclampsia," M. E. Hussey; "The Medical Inspection of Public Schools," W. J. Prince; "What of Our Therapeutic Progress," T. W. Rankin, Columbus

THIRD DISTRICT

A meeting of the Seneca County Medical Society was held April 16. M. Leahy of Tiffin was elected to membership. R. G. Steele read a very interesting paper on "Hematuria with Report of Cases." N. C. Miller of Fostoria reported a case of "Pernicious Anemia." J. H. Thompson of Greensprings reported a case of "Traumatic Pleurisy."

The Wyandot County Medical Society met April 22. I. N. Brown gave a very interesting address on "Medical Relief," which was discussed by Drs. O. C. Stutz, A. H. Myers, E. S. Jones and V. K. Knapp. "The Medical Inspection of School Children," O. C. Stutz; discussed by Drs. G. O. Markey, A. L. Walton, Sycamore and Kennan. Following this the election of officers took place. President, G. W. Samson; Secretary, W. M. Smalley.

The physicians enjoyed a banquet after the meeting.

FOURTH DISTRICT

The Medical Section of the Academy of Medicine of Toledo and Lucas County met April 15, 1908.

The general subject was "Tuberculosis."

Charles F. Tenney read a paper on "The History of Tuberculosis." He said the great frequency of the disease justifies physicians speaking upon it at every opportunity. The whole of our knowledge points strongly to the conclusion that prophylaxis must concern itself with preventing the tubercle bacillus from entering the body. The sputum is by far the most important vehicle for the conveyance of the tubercle bacillus outside of the body. Walter Brand then spoke of the endeavor of different countries to control the disease. In Russia, the mortality has been reduced from 30-32 in 10,000 in 1889 to 21-20 per 10,000. The control of the sputum should be attended to. Sputum cups, glasses and handkerchiefs were described. Dr. Brand suggested that all people that expectorate, from whatever cause, should carry sputum flasks in order to do away

with the dislike of tuberculosis patients to be marked by the carrying of flasks.

The methods for caring for children was spoken of. The face, hands and finger nails should be kept clean, floors, toys and all articles which the child comes in contact with should be kept perfectly clean. Especial care should be taken in the presence of a phthisical patient. Stress should be laid upon the ordinary rules of hygiene, such as ventilation, avoidance of dust, etc., after the death of a consumptive, the linen, clothes and often personal articles should be disinfected, the walls freshly papered and painted.

Opinions differ as to whether it is advisable to introduce compulsory notification, but there is an agreement as to the necessity of obligatory disinfection.

The care of tuberculous cattle was touched upon and the removal of this source of infection. The prevention of scrofulosis in children was stated to be a valuable prophylactic against the occurrence of other forms of tuberculosis. It is believed that the tubercle bacilli may remain latent in the lymph glands for many years, to again break out under favorable conditions. For these reasons, scrofula in children should be thoroughly cured.

The care of the gums, tonsils and nose is very important as these are favorite places for the development of tuberculosis.

Speaking of inheritance, Dr. Brand said that the experience of centuries shows the powerful influence of heredity in the development of tuberculosis. However, direct transmission of the infection does not occur. The predisposition is inherited, which means the type of thorax and functional activity of organs. The actual nature of hereditary predisposition is not understood.

In children, tuberculosis follows measles, whooping cough, and in adults syphilis and diabetes predispose. One-fourth of diabetics are said to die of tuberculosis. Catarrh of the respiratory tract predisposes to tuberculosis. Certain occupations favor it, workers in stone and glass most readily become infected.

The physician should not wait for tuberculosis to actually occur, but should treat predisposed individuals in order to build up their strength and nutrition, by diet, fresh air, exercises, etc.

The question of marriage and pregnancy was fully considered.

L. A. Levison read a paper upon "Early Diagnosis of Tuberculosis, with a Consideration of Tuberculin." He considered the diagnosis un-

der the heading of (1) History, (2) Symptoms, (3) Signs, and (4) Tuberculin.

The case history is of great importance and must be carefully taken. Actual association of patient with tuberculous individuals is of greater importance than a tuberculous family history.

Cough is usually the first symptom. It, however, may be absent until late in the course of the disease.

The temperature should be recorded upon a graphic curve. Subnormal temperature is more typical of incipency than fever. The pulse shows a tendency to tachycardia upon slight exertion, as a short walk, etc., otherwise until the disease is well established there is no change in rate, rhythm or quality. The respirations are not quickened until consolidation occurs. Pain, aching, tenderness may be early symptoms. Disorders of digestion may usher in the condition. Hemorrhage may first call the patient's attention to his lungs.

The determination of physical signs is the most important individual diagnostic method. The chest should always be stripped for examination. This will do away with many errors. Inspection should determine symmetry of the two sides. Cyanosis, rapid apex beat, glandular swelling and rectal fistulae may all be present. Palpation is valuable if the sense of touch is cultivated. Percussion is invaluable.

Da Costa's method of percussion at the height of inspiration and again during forced expiration should be tried. Comparative differences in resonance and pitch will precede dulness. Auscultation will first show harshness or diminution of inspiration, prolongation of expiration, fine rales. Similar rales may be heard in influenza, syphilis and actinomycosis. The heart sounds may be plainer with neighboring consolidation.

The sputum may now show bacilli early, the diagnosis should be made before.

Serum diagnosis was then considered. The serum reaction of Arloing and Courment was described in detail.

The tuberculin test was described in full. Previous to the injection, all medication should be stopped, signs accurately observed and recorded and the patient kept at rest. The response consists in temperature changes, constitutional changes and local changes. If the first injection gives no response repeat once or twice. Dr. Levison first gives one or two milligrams, then five, then ten milligrams if necessary. The reaction may be considered specific.

Apparently healthy individuals giving the reaction are probably latent cases. Mention was

made of the suggestion fever of neurotics. The ophthalmic reaction of Calmette was described.

The discussion of the above papers was opened by J. Mortimer Bessy. He spoke of the inability of the average general practitioner to diagnose incipient tuberculosis.

N. W. Brown spoke of his experience with the tuberculin test.

Landamn discussed the cutaneous tuberculin reaction of Von Pirquet. Dr. North believed that every case of tuberculosis was preceded by a long period of latency, or what he calls the primary stage.

Dr. Dachtler spoke of the Roentgen ray diagnosis.

Dr. Thorn spoke of the early diagnosis.

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met April 24. The general subject was "Criminal Abortion."

C. G. Sanders read a paper upon "The Infections of Criminal Abortion." He reviewed the bacteriology of the disease and spoke of the relation of the infecting organism to the prognosis and treatment of the disease. Dr. Sanders does not think that more cases of puerperal sepsis get well than in the days before antiseptics and bacteriology were introduced.

William H. Fisher read a paper upon "The Indications for, and Methods of Emptying the Uterus."

C. N. Smith spoke of "Uterine Drainage."

Charles W. Moots read a paper upon "Indications for Peritoneal Drainage and for Hysterectomy." He said in part:

In order to simplify my subject, I have first divided the cases into two general classes, viz.: First, acute; second, subacute and chronic. Under the acute cases let us consider those conditions only, with which we are very liable to be brought into contact in our daily routine rounds

1. Perforation of uterus.
2. Pelvic abscess.
3. Pelvic cellulitis.
4. Cases in which curettage irrigation and drainage fails to relieve.
5. Cases with uterus and adnexa all infected.
6. Cases with diffuse suppurative peritonitis.

Cases of perforation of the uterus are by no means rare, the perforation being caused by some foreign body introduced into the uterus, being forced through the uterine wall into the peritoneal cavity. The symptoms will, of course, depend largely upon the location and size of the perforation, the character of the infectious material, if any, carried in, and the resistance of the

patient. Cases have occurred in this city in which many feet of gangrenous intestines have protruded through the perforation, presenting at first sight a rather puzzling condition to the surgeon.

In all these cases the promptest action should be encouraged, hysterectomy with generous drainage instituted, as well as complication such as mentioned above, corrected. In cases of pelvic abscess, a thorough drainage will often suffice, even for a symptomatic cure. It is well in many cases to at least drain, and assist the patient to a partial recovery, when the risk for more extensive intervention will be reduced to the minimum.

In cases of infection in which there is an extensive cellulitis, a proper drainage following curettage, is of great assistance in preventing further serious infection. In these cases, Pryor's technique is of sufficient importance to be mentioned, and is as follows: After thoroughly cleaning out the uterus, a free incision is made into Douglas' cul-de-sac. With the finger through this incision, break up any adhesions, and, bringing down the tube, see that it is freely open, packing it with a narrow strip of iodoform gauze. Now break up all adhesions, thereby liberating the lymph that is imprisoned in the many pockets. A competent surgeon need have no fear here, for you are working from below, and will have generous drainage. Remove the gauze from the tube, replace the tube, and repeat same procedure on the other side. Pack uterus lightly, and the pelvis generously with iodoform gauze. This procedure is an exact counterpart of that done in an infection of the hand with cellulitis of the arm. You clean up the infection in the hand, then freely incise the arm at upper border of cellulitis area.

In cases which have been subjected to a curettage and thorough cleansing, and grow progressively worse, one should not hesitate long in doing a drainage and hysterectomy, selecting either the vaginal or the abdominal route, as the presenting case seems to require. If this class of cases, when brought to the surgeon, are at a "stand-still," as it were, showing that the infection is being well resisted, they should be given a little more time, letting them pass into the subacute stage before adopting more radical surgical measures.

Cases showing, when first seen by the surgeon, no resistance to the infection, with uterus, tubes, and ovaries all involved, should have an hysterosalpingo-oophorectomy at once. Generous drainage, probably both vaginal and abdominal, should, in most cases, be employed.

There is little room for argument about cases of diffuse suppurative peritonitis. Certainly no one would refuse drainage in these cases, the other work to be done depending on conditions found in each individual case.

This brings us to the consideration of the second general class, viz.: Subacute and chronic cases.

First among these let us consider the cases presenting a pyosalpinx, either single or double. We find these cases following criminal abortion very frequently. The symptomatology is quite interesting, but not in the province of this paper. It may be of a few weeks' standing, or even of many years. You will decide between complete removal or drainage. The former, if the consent of the patient can be obtained, otherwise the latter, which we must admit often secures at least a sympathetic cure. The first surgical case I had in this city was a lady who had been a working invalid for seventeen years, having a pyosalpinx of criminal origin, and who had carried it all those years because no one offered her any procedure but to go to the hospital and have an abdominal operation. After a generous drainage, she has remained quite well indeed.

Many cases that have had a curettage during the acute stage, pass into the subacute stage, and there linger. These cases should be opened, when you will generally find the adnexa, as well as the uterus itself, to have been thoroughly infected. If it is seen that all the adnexa must be removed, it is much better and safer to do a hysterectomy, for I am convinced that in nearly, if not all, of the cases in which the adnexa are all involved, the uterus is also infected, and if left it is worse than useless, causing a chain of symptoms characterizing the next class of cases, viz.:

Subinvolution, endometritis, metritis, giving leucorrhoeal discharges, more or less protracted hemorrhages, sense of weight, and pelvic discomforts. These are the cases which help to fill the pockets of the man always ready to advise so-called "local treatments," the patients growing continually poorer in two respects, at least. A properly performed hysterectomy produces a useful citizen.

Last of all, a few cases demanding removal of the adnexa may present fewer difficulties in the technique if accompanied with an hysterectomy.

W. J. Stone read a paper upon "Specific Therapy in the Infections of Criminal Abortions." He said after the appearance of symptoms of general septicemia, such as rigor, fever, abdominal

distention, rapid pulse, local treatment may or may not do much good. Two methods of general treatment are now available—the use of some anti-serum or the use of bacterial vaccines made from the infectious organism. If the infection is streptococcic, a good polyvalent serum, like Paul-tai's or Menzer's, should be tried. Here, however, one cannot be sure that he is giving an anti-serum antagonistic to the particular predominant strain of germ causing trouble. Anti-streptococcic serum may give gratifying results, but there are many cases reported where such was not the case.

The injection of any horse serum is not entirely without risk. The work of Rosenan and Anderson on hypersusceptibility was described. Ether narcosis has been found to prevent the manifestations of symptoms of hypersusceptibility.

Turning to that class of cases where the infection is other than the streptococcus, Dr. Stone spoke of the work of Wright. One may assume, he said, that the reason a chronic local infection persists is because the products of that infection which normally stimulate the opsonins of the blood serum to activity against it are either lacking or because such an infection is walled off; these stimulating products have no way of reaching the blood serum. Cases treated with this method by Ohlmacher and others were cited.

From more or less experience during the past ten months' work with acute and chronic infections of all kinds, Dr. Stone has considerable faith in the vaccine therapy. It offers as much hope in the acute uterine or general infections following abortion or during the puerperium as any method now in vogue.

The above papers were discussed by the following:

S. S. Thorne said that he had no confidence in any vaccine treatment or anti-toxin.

Park L. Myers also asked whether patients who recovered from infections with the use of sera did not recover in spite of the injections rather than on account of them.

Discussion was further participated in by Drs. McVety, Frick, McKesson, and others.

A special meeting of the Academy of Medicine of Toledo and Lucas County was held May 1. Charles O. Probst of Columbus gave a lecture upon "Sanatoria and Hospitals for the Cure and Prevention of Tuberculosis." The lecture was illustrated with lantern views. Dr. Probst sketched the history of sanatorium treatment from the

time of Bodington in England, and Brehmer in Germany. He dwelt at length upon the new Ohio State Sanatorium, and spoke of the good that it was capable of doing. Dr. Probst paid a touching tribute to the great work of Trudeau in tuberculosis work.

The Medical Section of the Academy of Medicine of Toledo and Lucas County met April 17. The general subject, "Leukemia," was continued from the last meeting.

C. G. Sanders read a paper upon the "Diagnosis and Blood Changes in Spleno-Medullary Leukemia." He defined leukemia as a disease due to the poisonous action of some substance in the blood-forming organs, characterized by a persistent increase in the white cells, with changes in the spleen, lymph glands and bone marrow.

The myelogenous type runs a chronic course from one to five years. There is occasionally an acute case reported. There are no characteristic symptoms. Enlargement of the abdomen, pain in the side, dyspnoea, weakness or hemorrhages may call attention to the disease. Priapism may be the first symptom noted.

Splenic enlargement is common to all cases. It also occurs in and must be differentiated from lymphatic leukemia, primary splenomegaly, Banti's disease, Hodgkin's disease, chronic malaria, hepatic cirrhosis, rickets, splenic infarction, neoplasms and acute infections.

Marked anemia may be present, but is not essential. An excess of uric acid is a constant finding in the urine. The blood findings were considered in detail. Nucleated red cells are found more commonly than in any other disease.

Essential for a diagnosis is the occurrence of the very many mononuclear, neutrophile cells, neutrophile myelocytes, the occurrence of eosinophiles and neutrophiles, an absolute and usually a percentage increase in the mast cells, atypical forms of leucocytes, especially mitotic forms, the presence of nucleated red cells, normoblasts and megoblasts.

The blood picture of myelogenous leukemia is very variable, many varieties are seen, all showing some features in common and all differing in some detail.

Harry Dachtler read a paper upon the "X-Ray Treatment of Leukemia." He first gave an historical resumé of the subject since reports of Pusey and Senn. The Roentgen rays have a selective action upon lymphoid tissues. Dr. Dachtler has treated five cases, three spleno-medullary and two lymphatic. Two of the myelogenous cases ran the usual course and improved

sufficiently to resume work. The spleen did not recover its normal size. Both patients have since died, one after fifteen months, and the other after eighteen months from beginning of treatment. Both patients refused treatment during the latter part of their lives on account of their apparent well being.

The third case was a girl of twenty and ran a more acute type. After eight irradiations, in which a total dosage of but $2\frac{1}{2}$ Holzknecht units were given, the patient developed an acute toxemia and died. Of the two lymphatic cases, one has been lost sight of and the other is doing well and was demonstrated at the last meeting of the Academy.

Study of the reported cases show that in irradiating the spleen and lymph glands, we are causing a destruction of the myelocytes and lymphocytes, without affecting the essential disease process. This causes an immediate improvement and a remarkable fall in the leucocytes, but the improvement is not sustained.

The method advocated by Pancoast is to divide the body into areas for treatment over the bone marrow, while protecting the spleen and lymph glands.

Cases vary so that the dosage required for some cases, cause a fatal toxemia in others.

Dosage had better be under than over the required amount. A technical description of the dosage and technique which cannot be abstracted.

The above papers were discussed by Drs. Brown, Daniels, Sonders, Dachtler and others.

The Williams County Medical Society held its third bi-monthly meeting for 1908 Thursday afternoon, May 14, in the probate office in Bryan. The program was as follows:

"Intermittent Fever," L. A. Beard, Pioneer; discussion, D. C. McTaggart, O. H. Nihart, J. I. Newcomb. "Whooping Cough," H. M. Byall, Montpelier; discussion, Walter K. Nihart, J. P. Pemberthy, F. H. Pugh. "The Prostate Gland in Health and Disease," D. G. Mortland, Edgerton; discussion, A. Hathaway, J. U. Riggs, J. A. Weitz.

Report of investigating committee, F. H. Pugh, chairman; report of committee on fee bill, W. L. Hogue, chairman.

The fiftieth regular meeting of the Lake County Medical Society was held May 4.

H. O. Feiss, of Cleveland, addressed the society on the subject of "Hip Disease."

FIFTH DISTRICT

The regular meeting of the Ashtabula County Medical Society was held Tuesday evening, May 12. There was a large attendance, and Dr. Leet, of Conneaut, gave a very interesting paper on "Suppurative Appendicitis," which was discussed by Drs. Palmer, Eades, Dickson, Elliott, of Sharon, Pa., and McGarvey, of Youngstown, O.

The delegate to the recent state convention, C. E. Case, gave a very able report of the convention.

Dr. Tower and Dr. Dickson showed some interesting clinical and pathological cases and specimens.

F. E. Thompson, of Geneva, was elected a member of the society.

The regular monthly meeting of the Lorain County Medical Society for April was held at Elyria. M. Stamm was the guest of the Society and read a paper on "Vaginal Cesarean Section: Its Technique and Present Status." Although there has been some dispute as to the priority in performing and introducing this operation, it now is conceded to Dührssen. He first performed the operation in 1895. The technique has been changed but little since that. The chief indications are conditions of the mother requiring immediate and rapid emptying of the gravid uterus. Puerperal convulsions is the most common condition calling for this. The antero-posterior incisions are advised. The perineum must first be incised. The placing of the sutures is important. The advantage of the vaginal route is its safety. The peritoneal cavity is not opened. Dr. Stamm was the first in this country to perform this operation. In the discussion many important points were brought out.

Dr. Nicholas read a paper on "Anesthesia, Anesthetics and the Anesthetist." The preparation of the patient, when possible, should be thorough. It is so much safer. The hypodermic administration of alkaloids is being used more and more for anesthesia, though many adhered to "ether by the drop method." The anesthetist should be a specialist.

The regular monthly meeting of the Lorain County Medical Society was held at the Carnegie Library, Lorain. It was an open meeting and devoted to "The Prevention of Tuberculosis." Martin Friedrich gave a very interesting address on the above subject. In the discussion which followed many outside of the medical profession took part. They discussed the point of the great need of educating the public as to the modes of

infection and the means of prevention. A motion was passed expressing the sense of the meeting that a society should be formed to accomplish this end. A committee was appointed to plan such a society.

SIXTH DISTRICT

The regular monthly meeting of the Summit County Medical Society was held April 7 at Akron. The program consisted of the following symposium on "Diseases of the Gall Bladder and Ducts":

In a paper on "Physiology and Pathology of the Gall Bladder and Ducts," by G. M. Logan, the anatomy of the biliary tract was dealt with only insofar as it concerned the most important physiological and pathological processes. The length and diameter and structures of the parts were compared; the significance of the folds of Heister and irregular course of cystic duct and pelvis of gall bladder from the standpoint of etiology of obstruction was called attention to. Brewer's opinion that a cystic duct that can be probed is a pathological one was recalled.

Dr. Murphy's idea of the gall bladder acting as a second valve to a syringe, thus equalling the pressure of the bile as it discharges through the ducts, was presented. The fact of the normal capacity of the gall bladder being only about 30 cc., while from 750 cc. to 1000 cc. of bile being secreted daily was mentioned as an argument against the former idea of the function of the gall bladder being a reservoir to receive the flow of bile between periods of digestion, and stated that the function of the gall bladder, as far as is known, is unimportant and obsolescent, and its removal seems not to effect in any way the health of the individual.

In dealing with the pathology of the biliary tract it was said the profession is learning more and more that the disturbances of the tract are due to inflammatory processes of these and neighboring structures and to their sequellæ. Cholangitis, cholecystitis and cholelithiasis, with or without adhesions and with or without obstructions, are but a succession of phases of their pathology, one finding its etiology in the preceding one; hence bacterial invasion, irritating all. Added to this, traumatism, which is rare, and malignancy within or immediately without the tract, you have the vast majority of gall bladder cases with which you ordinarily meet.

A brief review of the literature of gall stones was given. Summarized, the ideas of the crystallization of cholesterine, influenced by infecting micro-organisms, such as typhoid and other bacilli, are the prevailing opinions.

Of the neoplasms invading the biliary tract, benign tumors and sarcomata are rare. For account of carcinomata, Ratson's and Mayo's cases were mentioned. Of Mayo's cases of carcinomata, 75 per cent. were in women, or about the same sex proportion in which gall stones were found, and attention was called to the following conclusions by Mayo:

(1) Gall stones are almost always present in primary carcinoma of gall bladder and not in secondary metastasis.

(2) The relative disproportion of malignant disease of the gall bladder and gall stone disease in men and women is practically identical.

(3) The pathological lesions actually found are best explained on the irritation theory.

In a paper on "Diagnosis and Symptomatology of Disease of the Gall Bladder and Ducts," by C. E. Held, he said the early diagnosis of gall stones is important both to the surgeon and his patient. Their removal before complications arise is attended with little danger because of their easy removal and the patient's better condition for an operation.

The patient who has distress in epigastrium or right hypochondrium, with sour eructations, is mistreated if dismissed with a diagnosis of "indigestion" or "biliousness." His case demands repeated examinations and the presence of gall stones and organic disease of the stomach excluded.

The other symptoms, in their order of importance and frequency, are pain, jaundice, rigidity of muscles, nausea and vomiting, prostration, stones in feces, tumor, chills and fever.

Pain is the most constant and important and varies from an uneasiness to the colicky pains in the severe cases. Jaundice is a reliable sign, when present. Its absence is of no importance. The same may be said of tumor. Rigidity of muscles is an important sign, but chills and fever are uncertain and of importance only when present. Exploratory coeliotomy should be employed in cases of doubtful diagnosis.

"Medical Treatment of Diseases of the Gall Bladder," was given by W. W. Leonard, who said in part:

If we are called in during an attack of gall stone colic, hypodermics of morphine or codeine, with inhalation of chloroform, hot fomentations and enemata, will in the majority of cases give prompt relief. Cholestrin is held in solution in the blood and tissues by alkaline salts, by the compounds of potassium and sodium with the fatty acids. Bile, when of proper alkalinity, is not apt to the precipitated except in the presence

of infection and disease of the bile passages. On this theory the alkaline treatment is used after an attack of colic, but a definite gall stone solvent has not been found.

Many men have been successful in large doses of olive oil and glycerine daily.

Prophylactic treatment is not to be forgotten. People should be taught how to live to avoid gall stones, if possible—avoidance of tight lacing, moderate exercise and simple living. Repeated exhausting attacks of colic, signs of inflammation in the biliary passages and signs of complete obstruction of the common duct are given as positive indications for surgical interference, but the writer warns against the danger of waiting for too pronounced symptoms.

In a paper on "The Surgical Treatment of Disease of the Gall Bladder and Biliary Passages" A. F. Sippy brought out the following points:

In the last few years the value and possibilities of the surgery of the bile tracts has been so thoroughly demonstrated that it is now recognized as a field to all men doing abdominal work.

The indications for operating, according to Bevan, are:

(1) An enlarged gall bladder, which can be outlined by palpation and percussion.

(2) In frequently occurring biliary colic, without jaundice, with or without enlargement of the gall bladder.

(3) In persistent jaundice, ushered in by pain, and when recurring, with or without ague-like paroxysms, render it probable that the cause is gall stones in the common duct.

(4) In empyema of the gall bladder.

(5) In an indefinite class of cases, in which there is more or less pain in the right hypochondrium, which has existed for a long time, rather constant, a clear or vague history of gall stones attacks, the individual becoming a chronic invalid and not being benefited by general treatment.

The various incisions for operating on the bile tracts mentioned in text-books were then described, and one, given to the profession by Bevan, described briefly as follows:

The primary part, one which answers for exploration and for the simpler operations on the gall bladder, is an incision shaped like the italic letter *f*, along or through the outer border of the rectus muscle, about four inches in length. The extended parts of the incision, when required, may be made by prolonging the curve upward and toward the median line from one to three inches and below transversely outward about the same distance.

Cholecystotomy, the operation most frequently required, was described fully.

The operation of cholecystectomy was described and variations in technic of a few leading operators mentioned.

Cholecystenterostomy, the operation perfected by the introduction of the anastomosis button by J. B. Murphy, was described and a few rare conditions mentioned where this operation could be successfully employed.

A. Sicherman reported a very interesting case of tonsilo-pharyngitis gangrenosa. The patient, a little girl of four, was a mouth breather in consequence of enlarged tonsils and adenoid vegetation in the naso-pharynx, for which I had advised an operation over a year ago. When I saw her, she had simple follicular tonsilitis, with a temperature of $99\frac{1}{2}^{\circ}$ F. No pain on deglutition. Appetite very good; very constipated. In three days the tonsils assumed their normal appearance, the palate and the tonsils remaining swollen, œdematous. Temperature ranged between $99\frac{1}{2}^{\circ}$ and $100\frac{1}{2}^{\circ}$ for the following eight days, when, on the fourteenth day of the sickness, I noticed a black spot on the tip of the uvula. Here was the explanation and the cause of the continuance of the fever. The sub-maxillary glands swell on both sides. I made a very grave prognosis, knowing that the tonsils, the palate and the adenoids would form an ideal fold for the invasions of the pathogenic streptococci.

E. L. Mather, whom I called in consultation, gave a similar prognosis. After two or three days a line of demarcation formed, and the gangrenous tip of the uvula came off. The temperature began to creep up, and I knew that the process of destruction was progressing in the palate and in the adenoid tissues. There soon appeared a bulging in the soft palate, and on the next morning there was a perforation in the palate, and through this perforation we removed quite a mass of rotten, foul adenoid formations. At the same time there appeared a very offensive discharge from the nose, showing that the mortification had attacked the nasal structures. A dacryocystitis set in, with a copious overflow of tears. Soon there appeared a perforation in the hard palate; both tonsils gradually rotted off. During the whole progress of this gangrenous devastation the child had a good appetite. The fever rose to $103\frac{1}{2}$ to $104\frac{1}{2}^{\circ}$. Dr. Marion, from Cleveland, whom I called in consultation, confessed that he had never seen a similar case in all his special practice. Three days before death occurred there appeared a dark spot on the right ala nasi and a few hours later a perforation in

the ala. The duration of the disease was six weeks.

The regular meeting of the Stark County Medical Society was held May 19 at Canton, O. The program was as follows: "Honesty in Ethics," W. R. Spratt, Malvern; "The Dissemination of Venereal Diseases," D. S. Gardner, Massillon; "Infant Feeding," J. N. Nelson, Alliance. Case reports: "Acute Articular Rheumatism, with Pyemic Temperature, Treated with Anti-Streptococcic Serum," W. S. Foulks, Canton; "Post-Typhoidal Infection," C. A. Walker, Louisville; "Prolapse of the Abdominal Viscera and Pelvic Organs," B. J. Ferciot, Canton; "Acute Enteritis," J. B. Dougherty, New Berlin.

Applicants for membership were J. Eugene Shorb, Canton, and Vallooyd Adair, Massillon.

SEVENTH DISTRICT

An interesting meeting of the Harrison County Medical Society was held in Cadiz April 15. The following officers were elected: A. C. Grove, Jewett, president; R. P. Rusk, Cadiz, secretary.

Papers on tuberculosis were read by J. D. West and S. B. McGavran; discussed by Drs. Campbell, Grove and Rusk.

The Columbiana County Medical Society met May 12. C. D. Houser, of Youngstown, read a paper on "Head Injuries." H. J. Peeley, of Millport, also read a paper on "Some Knotty Problems the Country Doctor Has to Contend With." The attendance was good.

TENTH DISTRICT

At the regular meeting of the Columbus Academy of Medicine, April 20, the program was as follows:

"The Early Manifestations and Signs of Tuberculosis," E. A. Harper; discussion, Drs. Rankin, Combs and McClure. "Notification in Tuberculosis," C. O. Probst; discussion, Drs. Rankin, Berry and R. B. Taylor.

J. F. Baldwin reported the following cases, presenting the pathological specimens of all save one:

(1) Large hydronephrosis, the obstruction being due to a valve-like closure at the upper end of the ureter. The tumor had simulated an ovarian cyst, but the diagnosis was established by inflating the colon and the tumor removed by going through the right linea semi-lunaris.

(2) Large kidney filled with abscesses, each abscess containing in addition to pus and debris a calculus. The patient's general condition had

been bad from infection, but ureteral catheterization showed the other kidney to be apparently in good condition, the diseased kidney secreting merely pus. The kidney was removed, with great relief to the patient, but there was complete suppression of urine from the other kidney. Patient died in about a week from uremia. No post-mortem permitted.

(3) Kidney similar in general characteristics to Case 2, but the disease was of ten or twelve years' standing, and there was an entire absence of constitutional symptoms. The patient was a young lady, who was annoyed by the presence of the tumor, which disfigured her and which was steadily growing. Differential diagnosis in this case, as in the former, was made by inflating the colon, and the kidney removed in the usual way, with prompt convalescence of the patient.

(4) Entire left half of the lower jaw removed from a young girl. There had been apparently acute osteomyelitis of a year's standing, and this sequestrum was the result. The case had simulated in general appearance a sarcoma, but when the patient was under the anesthetic the bone was easily lifted out through the mouth. The case will be watched with much interest to see what nature will accomplish in the way of reproduction.

(5) An unusually large amount of hair removed from an ovarian dermoid. The case was peculiar in that dermoids had developed in both ovaries, and, as a coincidence, during the same week a second patient was operated upon for double ovarian dermoids, both making prompt recoveries.

(6) An enormous sub-peritoneal fibroid, the patient being a young lady in whom the tumor had developed, so far as known, within a very few months. It entirely surrounded the neck of the uterus, the body of the uterus projecting above the mass. The tumor had elevated the peritoneum on all sides and extended up considerably above the umbilicus. Its removal had been very difficult, but was successfully accomplished with supra-vaginal hysterectomy. One ovary was saved. The tumor was somewhat peculiar in that it was so edematous as to resemble in its physical characteristics an ordinary multilocular ovarian cyst. The incised tumor weighed twelve and one-half pounds after several hours of drainage. Uninterrupted recovery.

At the regular meeting, May 4, of the Columbus Academy of Medicine, the following was the program:

"The Diagnosis and Treatment of Early (Ac-

quired) Syphilis," Starling S. Wilcox; discussion, Drs. Riebel, Whittaker and Youmans.

Dr. Wilcox presented several papilliform growths which he had recently removed from the bladder of a male, aged thirty-eight. There was a history of injury five years ago to the right kidney, that was followed by several attacks of hematuria. There was never any pain, and the urine soon cleared. The diagnosis of the papilliform growths was made by cystoscope, and their removal was through a superpubic opening. Hemorrhage was controlled by the use of the cautery. Dr. Wilcox was of the opinion that the former kidney injury was in no way responsible for the present vesical pathology.

F. F. Lawrence reported an unusual anatomical condition which he had recently encountered while operating upon a physician for appendicitis. The meso-colon, instead of passing down the spine, passed outward below the hepatic flexure of the colon for a distance of two or three inches toward the center of the abdomen, and was again reflected to its point of origin.

C. W. McGavran showed the autopsy findings of the following cases: (1) Cancer, involving the pylorus and duodenum, with metastasis of the liver. (2) Scirrhus pyloric cancer, with a typical horseshoe kidney, containing two calculi the size of hazelnuts. Sir Henry Morris, of London, had diagnosed "renal calculi" eight years ago. (3) Hypertrophied right kidney, with ureter and bladder intact. In this case there was a congenital absence of the right kidney. The patient was an alcoholic, aged sixty-four, and died from pneumonia. At the autopsy no vestige of the left kidney could be found.

At the regular meeting, May 18, of the Columbus Academy of Medicine, the following was the program:

"An Assist Method of Delivery in Transverse Presentation," Andrew Rogers; discussion, Drs. Moore, Baldwin and Davenport. "Causes and Treatment of the Lachrymal Diseases," C. S. Means; discussion, Drs. Wright, Brown, Davis and Timberman.

J. E. Brown presented a specimen representing a naso-pharyngeal tumor which had been recently removed. The case was that of a sixteen-year-old boy, whose mother at the time was under observation by reason of exophthalmus and partial blindness in the left eye due evidently to a tumor involving the optic nerve. The boy was originally brought to the office last fall, prepared for a tonsil-adenoid operation, which was per-

formed and a large amount of diseased tissue removed. At this operation the septal obstruction was found, and it was stated to the parents that another operation would be necessary before the child would be relieved and nasal respiration restored.

A subsequent examination revealed a tumor visible in the right posterior nares. First it was hoped that this might be an inflammatory condition due possibly to traumatism due to the preceding operations, but this hope was not verified by further observation. The tumor was hard and vascular and had no tendency whatever towards pedunculation. It extended from the region bounded by the posterior ethmoidal cells and opening of the sphenoidal sinus down along the right lateral wall of the naso-pharynx to slightly below the level of the hard palate, and kept growing rather rapidly. Potassium iodide was used in large doses, without benefit. Owing to its position and size, efforts to remove the tumor or portions of it with the snare were rewarded with the excision of very small masses. The first report from the pathologist was to the effect that, while the exact character of the tumor was not certain, yet malignancy seemed probable. At a later attempt a little larger portion of the mass was removed, and the report from this was to the effect that the tumor was benign, being an angio-myxoma, a class of tumors having a marked tendency to recur if not thoroughly removed, and sometimes undergoing malignant degeneration. As a preliminary to the last operation the right inferior turbinal was entirely removed. A loop of strong wire was passed through the nasal passage and held in place around the base of the tumor as the wire was drawn into the canula. Despite all care, only a small portion of the mass was in the grasp of the wire loop, and tension on the wire finally became so great that it broke. Instead of pulling the wire out in the ordinary way after such breakage, the other strand of the wire was cut and the canula pulled out, leaving the wire loop in place, and it was thought by traction that at least a portion of the tumor would give way with the wire. Events proved that the tumor was denser than its attachments were strong, and the entire tumor was drawn from its bed and drawn out through the nasal passage. The tumor's measurements were: Greatest length, 54 mm.; greatest width, 22 mm.

The second specimen presented by Dr. Brown was that of an eye which had just been enucleated in the case of a child fourteen months of age. Three months previously the parents had noticed that the left eye turned inward at times, constituting a periodic convergent squint. Noth-

ing was thought of this until one month before the time the child was seen, when a whitish reflex was noted in the pupil, which was attributed to the cataract that had been previously overlooked. Examination had shown a mass occupying almost the entire vitreous cavity, small blood vessels and a number of hemorrhagic spots being noted on its anterior surface. Tension was increased slightly, and the morning following the examination, in which mydriatic was used, had increased to +2. The case was seen by Dr. Clark, who was called in consultation, who verified the opinion as to the probability of the tumor being a glioma of the retina, and the eye was immediately enucleated, as much of the nerve being resected with the removed eye as possible. The eye has been hardened in formaline and sectioned while frozen. It has softened somewhat, but shows very well the gliomatous mass occupying the vitreous cavity. Should pathological examination show an extension already of the tumor and infiltration along the optic nerve, recurrence of the disease and the death of the child within three years would be quite sure. Should the infiltration not have extended back into the nerve, it is possible that there may never be recurrence and the child remain perfectly healthy. The case goes to show that some importance should be attached to the appearance of squint in a case where binocular vision has once been established.

NEWS NOTES

Charles F. Daniels, of Columbus, has removed to Tiffin.

A. F. Emminger, Columbus, is spending several weeks in Mexico.

During April 747 cases of typhoid fever were reported in Columbus.

William H. Begg, Columbus Grove, has been reappointed a trustee of the Toledo State Hospital.

B. F. Barnes and J. C. Shirer, Newark, have been appointed surgeons for the Ohio Electric Railway Company.

Ralph A. Bunn, Dayton, recently defeated a suit for alleged malpractice in the treatment of an injured hand. The patient sued for \$5000.

At a meeting of the State Board of Medical Examiners April 7 the license of F. G. Leslie, Cincinnati, is said to have been ordered revoked.

Samuel De Loffre, honor graduate of the Army Medical School, whose home is in Washington, has been ordered to report at the Columbus barracks for duty at the hospital as assistant surgeon.

The physicians of Youngstown have organized a Medical Library Association. The following directors were elected: C. R. Clark, S. M. McCurdy, C. R. Booth, R. H. Montgomery and Ida Clark.

Major I. Raymond, surgeon in charge of the Columbus barracks, has been transferred to Fort Sam, Houston, Tex., and will be succeeded by Major Henry C. Fisher, formerly in charge of the hospital at Fort Logan, Colo.

At the semi-annual meeting of the Association of Assistant Physicians of State Hospitals, held at Gallipolis April 2, E. B. Morrison was elected president and S. P. Fetter secretary, both of the Ohio Hospital for Epileptics, Gallipolis.

The Cincinnati Academy of Medicine passed a resolution requesting the State Board of Medical Examiners to continue to hold their examinations in the four Ohio college towns, viz, Cincinnati, Cleveland, Columbus and Toledo. It had been but recently decided to hold these examinations in Columbus alone.

The regular meeting of the St. Alexis Hospital Alumni Association was held at the Hollenden, Cleveland, Tuesday evening, May 12, at 8 o'clock. The program was as follows: Report of a case of cerebro-spinal meningitis, J. S. Tierney; "Pathological Conditions of the Thorax," F. P. Corrigan; report of a case of tuberculous ulcer of the perineum, E. P. Monaghan; report of a case of miliary tuberculosis, C. E. Corlett.

The following are the successful applicants for internes at the Cincinnati Hospital: R. D. Mussy, F. F. Moore, A. J. Light, A. E. Schlaezer, J. H. Shaw, E. D. Allgeier, Joseph Ranz, David F. Gerber, W. T. Steward, C. E. Howard, Arthur Silver, William Abbott; alternates, E. M. Strasser, W. H. Hull, R. Brenner and Edward Blair.

Drs. Shoemaker and Porter have been appointed internes at the St. Mary's Hospital.

One of the most enjoyable features of the Columbus meeting was the smoker and luncheon of the Eye, Ear, Nose and Throat Section. An affair of this sort is a much better medium for promoting good fellowship and a more intimate association and acquaintanceship with our co-workers than a banquet. A delicious buffet luncheon, beer drawn right from the wood and good cigars added to the enjoyment of the occasion, and everyone expressed a hope that this feature of the meeting would become a custom in the future.

For the guidance of other sections that may wish to adopt this method of entertainment it might be mentioned that the entire cost of entertaining about sixty men was only \$55.

The thanks of the section is due the Oculists and Aurists' Club of Columbus for voluntarily contributing \$20 to help defray the expenses of this enjoyable affair.

At the annual meeting of the Ohio State Homeopathic Medical Society, held in Dayton May 13 and 14, resolutions were adopted asking for a modification of the pure food act so as to include additional drugs and medicines. The legislative committee was authorized to recommend to the Governor the successor to H. E. Beebe, of Sidney, as a member of the State Board of Medical Registration and Examination, he having declined a reappointment.

The next annual meeting will be held in Toledo in May, 1909, and jointly with the Michigan State Homeopathic Society. The new officers are: President, L. E. Siemon, Cleveland; first vice-president, E. A. Humphrey, Toledo; secretary, R. O. Keiser, Columbus; treasurer, T. T. Church, Salem; delegates, R. B. House of Springfield, B. W. Dawley of Toledo and W. B. Carpenter of Columbus.

DEATHS

Daniel L. Sullivan, Ohio Medical University, 1898, died at his home in Columbus April 24 from enteric fever, after an illness of ten days, aged thirty-three.

John A. Frame, Medical College of Ohio, 1872, died at his home in Columbus April 28 from cerebral hemorrhage, aged fifty-eight.

The following resolutions were adopted by the Delaware Medical Society on the death of W. B. Hedges at a special meeting held at the office of Dr. Semans on Thursday evening:

"Why do we wait till ears are deaf

Before we speak our kindly words,

And utter only loving praise

When not a whisper can be heard?

Why do we wait till hands are laid

Close folded, pulseless, ere we place

Within them roses sweet and rare

And lilies in their flawless grace?"

W. B. Hedges was born at McConnellsville, O., in 1835, and died at his home in Delaware May 14, 1908.

After acquiring a good English education, he studied to become a druggist, but soon after began the study of medicine and surgery, graduating from the Medical College of Ohio at Cincinnati in 1863. He at once went before the United States examining board for Ohio after his graduation and passed as assistant surgeon for the Eighty-sixth O. V. I., a six months regiment. At the end of this enlistment he returned home and again gave his services to his country. He was appointed assistant surgeon in the Eighty-second Regiment, O. V. I., under General Robinson, and marched with General Sherman to the sea, thence to Washington and home. He served with great honor and marked distinction until the close of the war.

Early in life, under strong convictions, he became a faithful member and an elder in the Presbyterian Church and remained an ardent supporter of the church until his death. He was married to Mrs. Mary J. Pewthers November 20, 1872. After returning from the war he, like Cincinnati of old, resumed his work at his old home.

In 1879 he moved to Delaware, O., where he was an active, successful and beloved practitioner, a faithful member of the County and State Medical Societies and the National Medical Association. He will be universally mourned and missed by all who knew him.

WHEREAS, W. B. Hedges has been removed by death from the ranks of the medical profession, we, its members, as a last tribute of respect, do hereby

Resolve, That, as a citizen, he was ever alive to his duties; as a physician, responding to humanity's call in the hour of need; as a member of the church, always faithful to the Master's command. In the cause of temperance and good

citizenship he was ever ready to give help and advice for what he thought was best for society and humanity.

Resolved, That as a worker in the medical profession he was highly honored and appreciated in the National, State and County Medical organizations; for his punctual attendance, his careful and active attention in their discussions and deliberations, ever working for the advancement of true, legitimate medicine.

Resolved, That the community, the ex-soldiers, the church, the charitable societies, business interests, the medical profession, feel that they have lost a friend and advisor, and his many patients a careful, sympathetic medical attendant.

Resolved, That in further testimony of our respect, we tender our heartfelt sympathy to his bereaved wife, relatives and friends, assuring all that we, his medical brethren, cherish pleasant memories of his life and influence, and that we attend the funeral services in a body.

Resolved, That a copy of these resolutions be recorded in the minutes of our society and in the State and National Medical Associations, and a copy be presented to his wife and a copy be sent to the press for publication.

F. S. GAGE President,
A. J. POUNDS Secretary,
S. W. FOWLER.

The members of the medical society of the city and of the county met at the office of J. K. James Saturday afternoon to attend the funeral of Dr Hedges in a body.

Samuel Nickles, Medical College of Ohio, 1865, emeritus professor of materia medica in his alma mater, died at his home in Cincinnati April 21 from la grippe, aged seventy-four.

T. J. Casper, University of Pennsylvania, 1861, died at his home in Springfield April 21 from pneumonia, aged seventy.

C. T. Grover, Cleveland Medical College, 1868, died at his home in Orwell March 29.

Otho Evans, Western Reserve University, 1856, died at his home in Franklin April 12, aged seventy-five.

C. F. Magers, Starling Medical College, 1896, died at his home in Tiffin April 13, aged thirty-seven.

O. W. Toby, Cincinnati Electric Institute, 1873, died suddenly at his home in Pymont April 14, aged fifty-eight.

H. S. Straight, Western Reserve University, 1885, of Cleveland, died April 14 in New York City on his way home from Europe.

The Cincinnati Academy of Medicine held a memorial meeting on April 27 for Samuel Nickles, who died in Cincinnati Tuesday, April 21. Dr. Nickles was born in 1833 in Cincinnati of Swiss parents, coming from Berne. He was a poor boy and had to do much towards making his own way. He graduated in medicine at the Eclectic Medical Institute of Cincinnati in 1856. In 1861 he entered the Medical College of Ohio, where he attended lectures for four years, graduating in 1865. He was appointed demonstrator of anatomy in the Medical College of Ohio in 1869, which position he held for four years. He succeeded Dr. P. S. Connor as professor of physics and medical chemistry. He occupied this chair until 1874, when he was transferred to the chair of materia medica and therapeutics as successor to the learned and lamented Dr. Roberts Bartholow. He continued to fill this chair until 1898, when he retired on account of advancing age and was made emeritus professor. Dr. Nickles was not a therapeutic nihilist, but was careful to prove everything and hold fast only to that which was good. His characteristics were adherence to duty, honesty, conscientiousness and unostentatiousness. He became a member of the Academy of Medicine of Cincinnati in 1872, was made librarian in 1875 and president in 1883. Addresses were made by P. S. Connor, who had been associated with him for forty years; A. G. Drury, who had known him about as long, and Thomas Hayes, who had occupied the position of pupil assistant and had attended him in his last illness. After hearing these addresses, the academy adjourned.

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ORIGINAL ARTICLES

THE ANNUAL ADDRESS IN MEDICINE.

F. FORCHHEIMER, M. D.,
Cincinnati, Ohio.

[Read before the Ohio State Medical Association, Columbus, 1908].

The art of prognosis is more difficult than any branch of practical medicine, for it depends not only upon one's knowledge of etiology, pathological anatomy and pathology, symptomatology, diagnosis and treatment, but also upon that which makes it an art, at least two human factors; the patient and the physician. Aside from the human element, prognosis is a logical sequence of all that has been discovered and reasoned out in connection with the patient and our knowledge applied to this. The scientific aspect of prognosis, like all of our science, is dependent upon the status of the contemporaneous sciences, and it follows, therefore, that, in part at least, we in our generation should be more accurate in our final conclusions than our medical ancestors.

Ernst Ludwig Heim was one of the predecessors of those celebrated teachers of medicine, Schoenlein, Frerichs and Traube, who began to make the University of Berlin famous. To show that he was a clinician of uncommon qualities, it is only necessary to state that he was the first to call attention to systolic retraction in the epigastric angle and over the false ribs in chronic adhesive pericarditis. He was the first to ascribe specific odors to the eruptive fevers, and it was said of him that he recognized any one of the acute exanthemata as soon as he entered the house of the patient. He died at eighty-seven years and during this long life he celebrated the fiftieth anniversary of his doctorate. As the story goes, and it was brought to me by the same who vouched for the accuracy of the diagnosis of eruptive fevers upon entering the house of a patient, Heim was then made an honorary citizen of Berlin. The festivities of the day were terminated by a

ball, and at this ball a quadrille was danced by eight people for whom, twenty-five years before, he had made a fatal prognosis. However true the story may be, it shows how little was thought of the accuracy of prognosis at that time, for not only did the patients live at all, but they lived for twenty-five years. All of us who have had a long experience behind us will have seen a number of patients who have lived notwithstanding the unpromising outlook prophesied for them, but few of us can recall so large a number who have survived so long after a fatal prognosis had been made. Indeed, the wise physician rarely makes an absolutely fatal prognosis.

Hippocrates in his first book on prognostics has given a definition of prognosis: "To know correctly beforehand those that will recover, and those that will die, and in what cases the disease will be protracted for many days, and what cases for a shorter time." To these must be added whether, if those that recover will do so without impairment of health or will be permanently damaged. He begins this book by saying, "It appears to me a most excellent thing for the physician to cultivate prognosis; for by foreseeing and foretelling, in the presence of the sick, the present, the past and the future—he will be the more readily believed to be acquainted with the circumstances of the sick; so that men will have confidence to intrust themselves to such a physician." In our day the art of prognosis is not so generally cultivated as in former times. There are many reasons to account for this. We have allowed ourselves to be carried off our feet by statistics; nothing is so enticing as to be able to say that a given disease is followed by a certain percentage of mortality, that a complication occurs in so and so many cases in a hundred or that sequelae are found in a number of patients. Every one seems to be acquainted with the fallacies of statistics, or better with those of the statistician, yet they are continually being utilized to settle questions in the most remarkable manner. But

aside from these fallacies, the chances of recovery in an individual case can only be roughly approximated by statistics, as there are so many factors which cannot be calculated by mathematics. It is impossible to express by a mathematical formula innate heart force, muscular development, nerve tone, psychical resistance, immunity and many other factors which in an individual or an individual disease might predetermine the outcome of his disease. It is true the layman is very much impressed by mathematics, and the physician who has treated several thousand cases of a given disease with a small mortality, represented by a unit and three decimal figures is a joy and a comfort to the profession. Provided the statistician is honest, strictly unprejudiced and thoroughly capable, the general mortality from a disease, its duration, the frequency and danger of complications and of sequelae may be expressed in figures. This, however, only obtains when a sufficient number of cases are reported which have been carefully observed under various conditions and at various times. It will be remembered that Sydenham who first indubitably described scarlet fever said, "It hardly deserves the name of disease," and for at least fifteen years the disease assumed this mild character, then came an epidemic in which the mortality was enormous. So that he was forced to the conclusion, which was not unpleasant to Morton, his rival, that he was mistaken, yet in all the editions of Sydenham's works that I have seen "*vix nomen meribatur*" remains unchanged.

The present status of medicine may be looked upon as a cause of the relative neglect of prognosis. At no time during the history of the world has medicine approached so nearly being a science as today. The reason for this is self-evident. When I look back to my medical boyhood it seems impossible that the present condition exists. In internal medicine we utilize the advances made in mathematics, chemistry, physics and biology for purposes of diagnosis and therapy. Diseased conditions are recognized with certainty whose existence was not dreamed of thirty years ago. Fifty years ago it was considered wonderful to recognize lesions which are within the grasp of all of us. Chelius, professor of surgery in Heidelberg for forty years—dying in 1876 at the age of eighty-two—always told his classes how, when he visited Sir Astley Cooper, in London, he saw this distinguished surgeon operate upon an abscess of the brain and strike pus; he always finished the narrative by saying, "This is no longer diagnosis, this is divination." One of the stories current

in Vienna when I was a student there, related to Oppolzer's skill in diagnosis. Oppolzer had made the diagnosis of tumor of the brain, the patient died, but the pathologist failed to find it at the autopsy, so Oppolzer went to the post-mortem room, looked over the cut brain and found a small tumor. Certainly no one today would look upon this diagnosis as a thing to be handed down for the admiration of students. Yet this great advance in all departments of medicine has caused us to be preoccupied with it and the art of prognosis has been relatively neglected. A glance at the literature of prognosis will suffice to establish the truth of this relative neglect of prognosis; the last book on the subject of prognosis is on the subject of life expectancy by E. Moritz, 1905, and it consists of fifty-seven pages and tables. The last one before this was published in 1849 by Weiger in Strasburg. We may look through the table of subjects in the Index Medicus and in volume after volume the title prognosis is not found. Even in the best of our text-books the subject does not receive the attention which it seems to me to demand. Compare with this the literature on diagnosis and the tendency of our times immediately becomes apparent. In the absence of the assistance which is given us by modern science our forefathers cultivated the art of clinical observation from a different point of view. How often do our patients feel neglected in that we have not looked at their tongues. I have been told of a celebrated foreign clinician whom an American patient criticized because he did not feel the pulse, but used a tonometer. Combine with the clinical astuteness of our medical ancestors the knowledge we possess, an accuracy in prognosis can be attained, and is attained, which is out of the question without this combination.

As has been stated before, for prognosis many factors must be taken into consideration. It would be entirely out of the question to discuss all of these on this occasion. It has seemed to me that modern therapy has done much in improving the chances of recovery from disease. I say this with the same assurance that has come to many of us who have had faith in therapy. It may be superogatory to claim that the principal object of the practice of medicine consists in curing one's patients and giving relief to their sufferings. There were times when this statement would not have found acquiescence with some medical men. Those were the days when the pathologist ruled with a rod of iron and it was of more importance to make a correct diagnosis than to prescribe proper treat-

ment. Brought up in an empirical medical atmosphere, I had a foretaste of what has been called rational therapy and then went through with a long period of medical nihilism. Rokitansky and the disciples of Skoda still held the center of the stage in Vienna; Rokitansky, who believed that pathology was the soul of medicine and Skoda, who thought the same for diagnosis, treating his typhoid fever patients with alum water—truly an expectant plan. Much of the deleterious effect of this teaching was counteracted by that great master, v. Hebra, who combined, as no one of his day, the elements that make for the great clinician. He applied his powers of observation and discrimination not only to diagnosis, but to treatment, as well. The young medical mind was taught to exercise itself in therapeutic problems, naturally largely based upon empirical reasons, and those who followed v. Hebra through his wards, where they could see the results of his treatment upon the skin were cured of their nihilism. The recovery of cases of confluent smallpox which were treated by the permanent bath was an excellent antidote to expectancy; the thought naturally arose that if symptomatic treatment could do so much in so fatal a disease, why should it not be done in others? But v. Hebra was not the only one in Vienna who was counteracting therapeutic fatalism; the men who taught other specialties were going in the same direction and enough opportunity was afforded to learn therapy, provided the individual permitted himself to be exposed to such enlightenment. But it is a far cry from 1873 to the present day when, as Cabot states, a renaissance of therapy has occurred. The word renaissance can hardly be applied to the present therapeutic tendency; it was the great master Trousseau who established the renaissance after therapy had been, as it were annihilated by Broussais, and the *Clinique Medicale de l'Hotel Dieu de Paris* (1865) was one of the first larger works which counteracted nihilism and pure empiricism. It is a book that influenced therapy and continues to influence it more than any other written up to its time. There has been a gradual, but steady development due to investigations in many of the fields of medicine so that at present not only is our symptomatic treatment better than ever before, but causal treatment has also made great progress. Specific medication was limited to syphilis and malaria. At present it is being tried in many diseases. Diphtheria antitoxin, that great discovery, was followed by so many disappointments in the use of other sera that

it seemed as if it would stand alone as a lucky stroke of chance, such as it was, when our present knowledge of immunity is taken into consideration. Who knows what with Ehrlich's lateral chain theory and the scientific working out of Jennerization according to Sir A. E. Wright and others, specific treatment will be able to accomplish?

Moreover, see the advances that have been made in dietetics! How agreeable it is to see long discussions on diet in certain diseases, sometimes, it is true, without our being able to discover anything more than hypothetical reasons, but nevertheless fruitful of thought and advance. How pleasant is Metschnikoff's promise of old age which follows the partaking of *bacillus lactis*! How definite, on the other hand, the diet in diabetes mellitus, obesity and chronic constipation and how suggestive the new diet of typhoid fever. Surely we also should be gratified in that food can be prescribed for an individual from one scientific point of view at least, that of its caloric value.

Symptomatic treatment has developed enormously. Hydrotherapy, mechano-therapy, massage, gymnastics are utilized by all of us. How many lives have been saved by the modern way of nursing. Notwithstanding the objections that may be raised to the trained nurse, which are logical consequences of our methods of training them and the creation of a new profession, how few of us would like to go back to the deep chested, plethoric, natural nurse. How delectable would be the telling of experiences with the natural born nurse—I might also add with some trained nurses.

The greatest advance in symptomatic treatment, however, has come to us in the rational use of drugs which, in order to be serviceable, must always be controlled by experience with the effects upon human beings. For the purposes, however, of therapy, animal experiments are of value only as suggestions; when we find that a certain remedy injected under the skin of a human being produces certain effects and does not do so unless injected into the muscles in the rabbit, it is of interest to us only when we have to treat rabbits. All suggestions are of value, but after all, those who apply them in the human being form the court of last resort.

Not long ago it was the pride of the physician to say that he could write his pharmacopeia upon his thumb nail. Breslauer, professor of materia medica in the University of Munich (1830), said, that in the beginning of his career he had five remedies for one disease; now he hardly had one remedy for five diseases. Very

few of us could use their thumb nails for recording their armamentarium of medicines and fewer still who are not able year by year to add new remedies to their list of efficient drugs.

But it is not only that new valuable drugs are added year by year, but also the recognition of the fact that by symptomatic treatment, while we may not be able to cure the cause of the disease, we may be able to cure the patient or at least prolong his life.

I want to say, here, that the physician who believes in the art of treatment and who knows it and its scientific basis must of necessity be an important factor in affecting the prognosis. It has always seemed to me that faith in the efficacy of one's therapeutic measures made for greater success in their application to man. This is seen in all the unscientific therapeutic movements which have existed since the beginning of history and which will continue to exist as long as man is as he is. One of the reasons why these movements, of which we have many at present, succeed temporarily, is because those who carry them out have faith in what they are doing for the patient. The paranoiacs and hysterics who frequently are the originators of such movements have implicit confidence in their powers. But sooner or later, when the number of disciples increases, ulterior motives creep in, faith is lost, and with this combination there is an end to the all-healing method. But even when normal subjects initiate a medical system, faith is their dominant characteristic. In medical therapy there are three classes of physicians: those who believe nothing, those who believe everything and those who believe only what is proven. Of these the sceptical believer is the best therapist; but I should prefer the man who uses too many rational therapeutic measures to him who uses none or very few. Nowadays no one can go through a thorough medical training without learning that certain drugs do certain things; we can paralyze motion in animals with curare; we can cause them to vomit, to purge; we can act upon the heart, the blood vessels, etc. With this knowledge comes faith; we believe that one or the other procedure has produced a given effect. Now, when these various activities have been proven in man, and not before, we are ready to use any drug or measure with faith in its activity. Moreover, in this way we add a psychical effect to a physical one. The psychical effect of therapeutic measures is at last coming to be recognized as of great value and importance. It has taken the profession a long time to find out that everything that happens to a patient is not

solely due to that which is done for him, but also to how it is done. Just as we learned from Hahnemann, despite his other errors, the importance of doing as little harm as possible with drugs, and of giving simple remedies, in the same manner we are learning from extra-professional sources, the great importance of psychical influences. In former days we gave drugs for moral effect, as a placebo or ut aliquid habeat; now it is for its suggestive effect. In reflecting upon this new department of therapeutics, we find that every physician worthy of the name has employed it consciously or unconsciously. Now that it is being introduced as a science our ultra-scientific therapists may be tempted to try it.

Within the limits of the present paper, it is impossible to enter in detail into the other human factor of prognosis, the patient.

One illustration, I hope, will be sufficient. In pulmonary tuberculosis the following individual conditions are important for prognosis: The age, sex and race; the status of the patient as to wealth or poverty; the fact whether or not there is a hereditary predisposing influence; the general resistive power; the psychical state of the patient. Other general considerations of importance are, for a favorable prognosis, steady gain in weight and diminution or cessation of fever. In the lung the prognosis grows worse as we go from one stage of the disease to the other, the more the process is disseminated and the more acutely this dissemination takes place. Prognosis is most unfavorable in those cases in which there is widespread consolidation. In haemoptysis the prognosis depends upon the quantity of blood, the length of time it persists and the complications produced by it. In organs remote, the prognosis is most affected by conditions in the gastro-intestinal canal and by the state of the heart. Brehmer, the father of modern phthisio-therapy was the first to call attention to the importance of the heart in pulmonary tuberculosis, like all discoverers, however, he over-estimated the value of the discovery. The psychical attitude of the patient, his adaptability to change in his external surroundings and to his altered relations to others; furthermore, his courage and endurance are important factors. Finally the complications must be considered, especially localization of tubercular processes in remote organs.

The relation of the physician to the patient as to prognosis is of great interest. In the making of a prognosis the physician should rely upon diagnosis, the weighing of individual symptoms, the influence of therapy in general

and, specifically, in the given individual, and finally upon general as well as specific considerations applied to the individual. The weighing of individual symptoms is extremely difficult. We exclude here altogether the discussion of prognosis as to impending death. As in diagnosis, the prognosis should not be based upon one symptom. One example will suffice to illustrate this accepted fact. In 1879 von der Velden published his discovery that free hydrochloric acid is absent in cancer of the stomach. The next year I saw a patient with stomach trouble; it was a chronic affair; the stomach contents had been examined for free hydrochloric acid, and as it was absent the diagnosis of cancer of the stomach was made; today, that patient chuckles every time he sees his doctor. Here was a diagnosis which had as its ultimate basis one symptom, a symptom whose origin was absolutely in the dark, and yet a fatal prognosis was made as the result of a diagnosis based upon its presence.

As a broad, general proposition, we should be very careful in making fatal prognoses. The only time in which this is permissible is in a disease absolutely incurable and which kills. Even then, when a disease has a long course to run, when the patient continues to be careful and to follow his vocation, it may be well to remember that we are not justified in impairing the usefulness of this patient, his duties to his family and taking away from him the pleasure of living by a prognosis unnecessarily gloomy. What incalculable harm is done by the officiousness of the introspectively conscientious and superhumanly objective physician! Such a one finds a slight mitral lesion in a patient and forthwith he proceeds to tell his patient what surely will develop if the patient lives long enough. He tells him all those things he should not do, and lays little stress upon the things he may do. He gives him a lecture upon the heart and explains where the lesion is and how marvelous is the process of compensation and how dire the consequences of its failure. He then prescribes prophylactic and therapeutic measures, all this time having over-estimated, unconsciously, we hope, both the importance of the disease and his own importance. The patient leaves him, feeling that he is doomed to a short life, a precarious one and one of invalidism. If he is a wise man, he consults another physician, and if this other physician takes the human and humane view of the situation, eventually the patient may again come back to the attitude in which he lived before he consulted the scientist. In a concrete case like the

one just mentioned, it takes a long time for the patient to become disabused of the notion that he has not all the conditions that lead to sudden death, death in the near future or, at least, to chronic invalidism. I have seen a number of patients in whom it took several years before they were willing to consider themselves not mortally wounded; this time of preparation for death was spent away from their occupation; when their means permitted it, they put themselves in the hands of what the lay press call heart specialists. With more intimate contact with patient and physicians, in the various places which are inhabited by the heart specialists and their patients, the doomed man finally has heart symptoms from mimicry. He does not improve, so he consults more heart specialists—after all, it is not a question of diagnosis in these instances, but one of prognosis; all these distinguished men agree, there is a lesion; there may be such or such results; possibly a new result more horrible than the others with which the patient was acquainted turns up. What should be done? Consult another doctor or go home? This time it is a man who has a combination of knowledge and common sense, and as the patient reflects upon what has happened during the consultation he begins to feel that there is a chance for him. He now goes home and carries with him the neurasthenia and hypochondriasis which have developed. But he goes back to his work, gradually the clouds lift, he is permitted to go back to his old diet, with great fear and trembling he surreptitiously tries to smoke a cigar, and as one indiscretion is added to another, he generally becomes happy again and—well. In the meantime he has found his limitations, as well as himself. All of this has occurred because a patient has a fully compensated mitral lesion and because of this he has come out of his troubles without harm. But the same proposition in a disease in which maintenance of general health is paramount, what will be the result of this kind of prognosticating? Again, take pulmonary tuberculosis as an example, as well as a concrete case; a patient has slight changes in the apex, he gets an attack of influenza; with it there develops pseudo-pertussis, as the result of which he coughs up some blood. After careful and repeated examination the attending physician is able to state to him that there is no active tuberculosis. Although the man is in excellent condition, aside from his cough, a lung specialist in another city is recommended to him. He consults the lung specialist who concurs in the domestic diagnosis. He wishes

to make assurance doubly sure, so he goes to another lung specialist; this one states that he has subacute miliary tuberculosis and makes a doubtful prognosis. His chances now are one out of three that he has phthisis, so he is recommended to a tuberculosis specialist, who gives the opinion that he has the lesion of pulmonary tuberculosis and should take care of himself. Now it is an even chance and the specialists are exhausted. What does he do? He goes home to his own physician and tells him his experience; he relates it in an off-hand manner, possibly a trifle too much so, and refrains from making remarks about the medical profession. Whom does he believe? The men who found something the matter with him, at least he acts as if he believes them, wisely taking no chances, and leaving his work goes to another climate. After a month he comes to the conclusion that he is well and returns to his occupation. For fifteen years this man has been waiting for pulmonary tuberculosis to develop; from having been one who rarely complained he now watches himself all the time and is constantly in the hands of those popularly called specialists. But supposing the family physician and the first consultant had been wrong and the second one right, what effect would a bad prognosis have had upon his man? The chances are that the prognosis would have been correct, because of all diseases pulmonary tuberculosis requires the individual to have qualities which this man did not possess; he could not have made a successful fight with the chances against him.

In some respects the instances cited may not represent the majority of patients which come under the physician's care, not so much in that they are taken from a certain class of patients, but in that, probably not a majority of patients are neurotic. Yet without being neurotic, the fear of disease, especially lingering disease, exists in all persons. However this may be, the necessity of expressing the prognosis, in a given case, in the proper manner is of the greatest importance. The question whether the patient should be told the truth under all circumstances hardly bears discussion. Whether he should be told the whole truth is a different matter. It is freely admitted that doing harm to his patient is not to be looked upon as a physician's duty. Whenever, then, the whole truth will injure the patient's chances of recovery or shorten his life, the truth should be administered in proper doses. In these circumstances the dosage differs with the individual—in some it should be small, in others large. An average

dose cannot be stated, as is done in our new pharmacopeia, for drugs. So that, as with a potent drug, the physician should feel his way, judging by the effects whether to increase the dose, to diminish it or to withdraw the drug altogether. On the other hand, the individual may have a disease in which he himself can do much to prevent exacerbation or even a fatal issue, then the damage done by a large dose must be carefully weighed as against a small one. As a rule, the tact of the physician should carry him out of this dilemma, yet the responsibility is so great that the patient should be told as much as is necessary to leave the responsibility with him. But there are a number of conditions in which toxic doses of the truth should be administered, in such as have a dangerous disease and will not obey instructions, and especially in drug habitues. However much or little may be told the patient, it is essential that some one close to him be in possession of precise knowledge as to the physician's opinion, which should be expressed accurately and precisely. Here there can be no compromise nor reticence; either the one or the other might be harmful to the patient or the physician.

In expressing himself as to the duration of a disease the physician in some instances may be guided by an average course which has been established by observation; this is the case in many of the infectious diseases.

Here we have the normal course, the course with complications and the sequelae to guide us in prognostication. But in many other forms of disease the degree, quantity and location of pathological change and the rapidity with which the process has developed may possibly give us some insight into their probable duration. The question is so frequently asked of us, how long will the patient live? In acute cases it is frequently possible to state approximately the time, when everything relating to prognosis is taken into consideration. When in acute cases we may be able to determine days of duration, in chronic cases it may be months or years. In chronic cases it is extremely hazardous to give any opinion as to the length of time until a fatal issue will ensue. The utmost that can be said is that the average duration of a given disease, when incurable or advanced to a certain stage, is a given number of years. In expressing ourselves more definitely, it seems to me that we are not only exceeding our limitations, but, because of the common failure of such prognostication, we have reduced one of our most valuable assets, respect for the profession.

When the end is approaching it is not uncommon to find that we are expected to determine at what hour the end will come. In many instances when everything has been given due consideration, and with a leeway of a few hours, it is not difficult to determine this. But there is no law as to the time of dying; many laymen as well as physicians believe that most human beings die in the hours between midnight and the early hours of the morning, because the vitality is then at its lowest. Burns has collected the exact times of death in 15,000 cases, extending over twelve years. He finds "that death occurs seemingly without any predilection for any certain hour and that the number of deaths for each hour is very evenly proportioned, considering the large number of cases taken and the time covered."

In conclusion I may say that we should be more careful with favorable than unfavorable prognoses. Although, as a broad proposition the chances are in favor of a patient's recovery, yet complications cannot be foretold. Moreover when a patient in whom an unfavorable prognosis has been made recovers, it is forgiven and forgotten, when, on the other hand, a patient dies and there has been no warning it is always counted up not only against the individual physician, but frequently against the whole profession.

GONORRHEAL ARTHRITIS.

GEO. I. BAUMAN, M. D.,
Cleveland, O.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

Gonorrheal arthritis is an infection of one or more joints caused by the presence of the micrococcus gonorrhoeae or (rarely) by its proteins, and usually occurring in the later stages of gonorrhea.

Arthritis was early recognized as a complication of gonorrhea, having been mentioned in 1507, and being known to such men as Hunter, Astley Cooper and Brodie. Neisser's discovery of the micrococcus gonorrhoeae led to the conclusion that this complication was due to a metastasis from the original seat of infection and this was proved in 1883 when Petrone was able to isolate the organism from the joint effusion.

The affection is variously known as gonorrheal rheumatism, urethral rheumatism and gonarthrititis but these terms should be discarded

for the more proper one of gonorrheal arthritis or osteoarthritis.

Etiology and Occurrence—Arthritis complicating gonorrhea is probably much more common than is usually thought, various observers estimating two to seven per cent. in males, while in females it is less frequent. However, owing to the frequent difficulty of diagnosing chronic or latent gonorrhea in men, but more especially in women, many cases go unrecognized or are diagnosed as rheumatism. Arthritis coming on during the puerperium is frequently gonorrheal. The majority of the cases occur between the twentieth and thirtieth years, but it may come on at any time, many cases having been reported of its occurrence complicating gonorrheal ophthalmia. Holt says that a pyemic arthritis in a young infant is much more frequently due to the gonococcus than to the streptococcus or any other pyogenic organism and proposes the term gonococcus arthritis as being less suggestive of vice than gonorrheal arthritis.

Although in the great majority of cases an urethral or vaginal discharge is present during the onset of the arthritis, authentic cases have been reported in which gonorrheal infection could not be demonstrated in any other part of the body. It may occur at any stage of the initial infection, but is most common between the third and fifth weeks. It may come on months after the first acute attack. Any joint in the body may be affected, the knee (fully fifty per cent. of the cases), elbow, ankle, wrist, shoulder, hip, and joints of the hand and foot being most frequently involved. Bouchard recently attributed the occurrence of a vertebral rheumatism to an old gonorrhea and there is little doubt that certain of these painful and ankylosed spines are the result of previous gonorrhea.

Strong intraurethral injections, rude introduction of instruments, the use of the bougie, the act of coition and exposure to cold may act as contributory causes of gonorrheal arthritis.

Bacteriology and Pathology—Various explanations have been given for the occurrence of arthritis coincident with or complicating specific urethritis some holding that it was due to the presence of the gonococcus itself, others to a mixed infection, others to a toxin or product of the gonococcus. With diligent search the gonococcus may be found in fully seventy-five per cent. of the cases. It is sometimes mixed with staphylococci or other organisms and is most frequent about the third or fourth day of the attack. In fifteen to twenty per cent.

of the cases no organism can be found, but it is more likely that they have been present and disappeared than that the symptoms are caused by toxins or proteins alone. The infection occurs from the blood stream from which the gonococcus has been isolated.

The invasion of a joint by the gonococcus is similar to its invasion by any other pyogenic organism. The infecting organism may lodge primarily in the articular ends of the bones or in the serous lining of the joint, or both bone and serous membrane may be involved, in which case the original focus is more probably in the bone than in the serous membrane, since the invasion of the joint is easier from the bone focus than vice versa. König classified the affection pathologically into *hydrops articularis*, *hydrops articularis* with sero-fibrinous exudate, *empyema* of joints and *phlegmon* of joints, but Nathan's division according to the part first involved into arthritis and osteoarthritis is more practicable and of more help in making a prognosis and outlining treatment. In gonorrheal osteoarthritis the invasion of bone is characterized by a rarefaction which is easily demonstrable by a good radiograph. According to the virulence of the organism and the resistance of the tissue this may stop at this point or go on to actual destruction. In the milder form of osteoarthritis there is a serous exudate into the joint and periarticular structures while in the more severe forms the joint is secondarily invaded by the gonococcus and a condition of *empyema* or *phlegmon* is established. The primary invasion of the synovial membrane is characterized more by a proliferative than a destructive process. The synovia and periarticular tissues are thickened and infiltrated and the joint exudate is very often blood-stained.

Onset and Diagnosis—The onset of gonorrheal arthritis is characterized chiefly by pain which is usually very severe, tenderness, swelling and effusion, and some redness. Pain on motion is particularly severe. The general symptoms are fever, usually moderate, but at times as high as 104 to 105 degrees, chills or chilly sensation, anorexia, constipation, coated tongue and high colored and scanty urine. Although it is commonly thought that gonorrheal arthritis is monarticular, fully sixty per cent. are polyarticular, but usually only one joint is severely affected. Ankylosis is rare in the purely arthritis type, but common in the osteoarthritis type. With the possible exception of arthritis following puerperal fever no other pathological process will produce bony ankylosis so quickly as gonorrheal arthritis. Nathan suggests that

the so-called chronic forms might better be considered recurrent forms or the result rather than the continuance of the trouble.

The diagnosis is usually simple. As a general rule it may be held that any arthritis appearing during or closely following a gonorrheal infection, particularly with severe pain and moderate temperature, may be considered gonorrheal.

In the differential diagnosis only two conditions need be considered, viz., articular rheumatism and joint tuberculosis. In gonorrheal arthritis there is not the tendency for one joint to improve as another is involved which is so characteristic of articular rheumatism. The fever is usually not so high; pain is worse at night; acid sweats are absent and endocarditis is rare. There is no improvement upon administration of salicylates. Tuberculosis, particularly of the smaller joints, may closely simulate gonorrheal arthritis. Pain, tenderness, swelling and local heat and redness are usually more pronounced in gonorrheal arthritis and tuberculin may be of some assistance in the diagnosis.

Treatment—The treatment that has been recommended for gonorrheal arthritis has been varied and as a whole quite unsatisfactory. However, if treatment is begun early and properly carried out, practically all cases should get well. Appropriate treatment in the individual case depends upon the character of the infection, i. e., whether there is an osteoarthritis or a pure arthritis, and upon the stage the affection has reached, i. e., whether there is an acute condition present or deformities or disabilities resulting from the acute condition.

In the acute stage the patient should be kept in bed, the bowels kept open, given a milk diet and tonics administered if necessary. Plenty of out-door air is also essential. If the discharge is still present the urethritis should be properly treated, if not the urethra had best be let entirely alone, as too prolonged and energetic treatment has been known to keep up the joint trouble. Urinary antiseptics are always advisable. Locally the joint should be kept at rest; this may be accomplished by removable plaster of paris, posterior wire or wooden splints. If the knee joint is affected it should be straightened, if necessary under an anesthetic, and kept straight; if the elbow, fixation in the flexed position is desirable. In some cases extension is advisable. In all acute cases Bier's method of inducing artificial hyperemia should be given a thorough trial, since no other method gives the relief and permanent benefit

that this does. It should be used continuously for ten to fifteen hours a day, hot or cold applications being applied in the interim. Hot air baths, although acting in the same way, seem to be more beneficial in some cases. In a few cases where there is much fluid, aspiration followed by compression is advisable. Only those cases in which pus is present should be submitted to operation. This should consist simply in incision followed by Bier's hyperemia. Passive and active movements should be begun early, especially in the osteoarthritis cases, since ankylosis comes on much more quickly in these cases. Turkish baths, static electricity and massage may be added as additional therapeutic measures. Rogers recently claimed prompt relief and sixty-nine per cent. cures in a series of cases treated by anti-gonococcic serum obtained from rabbits and opsonic therapy promises much in the future treatment of these cases.

When deformity or disability follows an acute attack of gonorrheal arthritis it should be treated the same as similar conditions following arthritis of other cause. If there is a fibrous ankylosis present the adhesions should be broken up under an anesthetic and massage and manipulation carried out until motion is free. In the presence of bony ankylosis extensive open operations consisting in the removal of spurs and the interposition of a layer of muscles or fibrous tissue are required. If the treatment outlined is carefully pursued practically all cases whether in the acute stage or in the stage of deformity and disability may be greatly benefited and usually cured.

DISCUSSION.

C. A. Hamann, Cleveland: Dr. Bauman has outlined the treatment of this disease as we now understand it, and know it, and scarcely anything can be added to his statements. My experience has been that there may be extensive destruction of the bone and bony ankylosis may occur. I have operated upon two cases in which it was necessary to excise the head of the femur, owing to the serious osseous lesions present. In a number of cases benefit has resulted from irrigations of the joint cavity with bichloride of mercury solutions, and in others iodoform glycerin injections have improved the patient's condition.

A. P. Ohlmacher, Detroit, Mich.: This is an unexpected opportunity. Mr. President: I can say but few words, being entirely unprepared to discuss a paper on this subject.

The matter of treating gonorrheal rheumatism, or gonorrheal arthritis, rather, by injections of anti-gonococcic serum, as the essayist has said, will not yet permit the formulation of a definite opinion. I have had some personal experience in another direction, enough to con-

vince me that along with other well established methods, the use of gonococcic inoculations will be a resource that not infrequently will aid us in our handling of this often very stubborn and intractable disease. I conceive that the use of gonococcic inoculation by the opsonic method alone will not always prove effective; and particularly in cases of acute, subacute and chronic gonorrhea where the infection is a mixed one, that is, one in which the gonococcus is associated with other organisms. There is one particular organism associated with the gonococcus in the acute, subacute and chronic gonorrheal urethritis, that is more important than has been realized up to the present time. This organism is the so-called pseudo-diphtheria bacillus. I have found it so frequently in my bacteriologic studies of gonorrhea that I am inclined to believe it is an organism of considerable importance. My increasing experience seems to show that in treating gonorrhea, or such complications as gonorrheal arthritis, by bacterial therapy it is important to recognize and direct our therapeutic efforts to the mixed infection, using not alone the gonococcus by inoculation, but the other organisms (staphylococci, pseudo-diphtheria bacilli, colon bacilli, etc.), which are found in association with the specific diplococcus.

THE HOMEOPATHY OF HAHNEMANN COMPARED WITH THE HOMEOPATHY OF TODAY.

CHAS. H. HIGGINS, M. D.,
Zinesville, O.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

When I delivered the valedictory address of my class at the Southwestern Homeopathic College, I began it with this quotation:

"The babe may cease to think that it can play
with heaven's rainbow,
Alchemists may doubt the shining gold their
crucibles give out;
But faith, fanatic faith, once wedded fast
To some dear falsehood holds it to the last."

There was a doubt therein expressed, a doubt of the therapeutic gold which the crucible of the homeopathic alchemist was giving out. Still I had faith in the dear falsehood, but faith not wedded fast, for it did not hold it to the last. And now, that my words be not misunderstood, let me define the word faith, as herein used, as that quality of mind which enables one to believe that which he knows to be false. But there was something wrong with my faith, for when I read of wonderful cures of malaria with the thirtieth potency of *Natrum muriaticum*—a mediaeval name for common salt—or an equal-

ly wonderful cure of intestinal indigestion with the twentieth potency of lycopodium, my faith became transformed to doubt, and when it came to curing fistula in ano with the thirtieth potency of silesia (common silica) my doubt was changed to disbelief, and I concluded that nature with her wonderful *vis medicatrix* had been extremely kind in these cases, in that she had not only cured the patients, but had given the doctor all the credit.

Few men are so poised that they can weigh the pros and cons in the balance of impartiality. The contending forces of Scilla and Charybdis wage incessant warfare, and the life of a man or even of a race is frequently not long enough to give to truth her victory.

The history of the world, as given to us, is a jumble of truth and falsehood. The impartial historian has not yet been born. He may be honest. No doubt Dr. Abbott, when he wrote his famed history of Napoleon the Great, was honest, but he worshiped at the shrine of his hero, and it will take a man neither Protestant or Catholic, neither French nor English, neither Christian nor Jew, to give us the truth about Napoleon, and such a man has not yet been born. So shall it be with Samuel Hahnemann.

In entering for the first time a lodge of almost any secret order, the candidate is divested of his outer garments that he may bring nothing offensive or defensive into the lodge. Hence in approaching the subject upon which I have been requested to write, I have tried to divest myself not only of my early prejudice for, but of my later prejudice against homeopathy.

The history of medicine is not all a history of brilliant achievements. From the destruction of the Alexandrian libraries to the beginning of the reformation the art of medicine was little more than priestcraft and rank charlatanry. But the spirit of research, dormant since the days of the Ptolemies, began to reassert itself about the same time that the reformation was beginning to be felt, and some immortal names came forth from the shake-up that was taking place at the close of the sixteenth century. Arantius, Eustacius, Fallopius and Varolius began to dissect the human body. Piccolomini described the structure of cellular tissue. Prosper Alpinus laid the foundation for accuracy in diagnosis. Plater classified diseases and Ambrose Pare began to approximate modern surgery.

The renaissance of the physical sciences soon followed, and gave us such names as Descartes, Galileo, Napier and Torricelli. Following soon came the more important discoveries, such as the valves of the veins by Fabricius ab Aqua-

pendente; the course of the blood current would have been determined by Cervetus, had not Calvin got his head, long before Harvey fully described the circulatory system. Asellius described the lacteals, Willis laid the foundation for cerebral localization, Malpighi applied the microscope to the study of anatomy, Lewenhoeck discovered spermatozoa, Graefe studied the functions of the generative organs, modern chemistry arose with the theory of the indestructibility of matter, Da Vinci proved the eye to be a camera obscura and Leibnitz propounded the doctrine of the gradual cooling of the earth's surface.

These are some of the achievements fresh in the minds of the people when Hahnemann began his career. Infallible laws were being discovered. Exact science was being separated from the rubbish of mediaeval superstition. Kepler had reduced the motions and pathways of the planets to two infallible laws. Galileo had enunciated the three infallible laws of motion of masses, and Newton had proclaimed the infallible laws of gravity.

But with all this array of progress along scientific lines, therapeutics, the application of drugs to the cure of disease, was then, as now, the bugbear of rational medicine, and the boiling caldron of therapeutic doubt and dissatisfaction was issuing forth a hissing, seething vapor of disbelief amid which Hahnemann pictured the spirit of a new system taking form. Why then, argued he, with this array of infallible laws, should not an infallible law of therapeutics be discovered? "It does exist," said he. "Did not Hippocrates once say that drugs will sometimes cure symptoms like they produce?" Did not Hermes observe it even in the days of Moses? Did not Paracelsus preach some sort of homeopathy? But they only saw the shadow. I have the substance. Eureka! And it is this: *Similia Similibus Curantur!*"

But the homeopathy of Hahnemann was based upon a foundation, if not more rational, at least possessing more claims to rationality, than that of his predecessors. Paracelsus, for instance, might have used hydrastis for jaundice because it was yellow. Hahnemann might have used it because he thought that in large doses it would produce a condition similar to jaundice—mark that expression "similar to"; not jaundice, but a condition similar to jaundice. Rational medicine would use it empirically because, probably by accident, it was found to have a soothing and healing effect upon mucous membranes. *Pulmo vulpis* (lung of fox) as a remedy for asthma antedated

Hahnemann, and is no more a part of Hahnemannian homeopathy than the expression falsely attributed to homeopathy that "the hair of the dog is good for the bite." This kind of homeopathy more properly belongs to our modern and popular organotherapy.

Let us also clear Hahnemann of that spurious homeopathy that prescribed *dulcamara* for colds because the bittersweet grew in cold places, or *cinchona* for malaria because *cinchona* grew in marshy places where malaria abounded, or the use of the salicylates for rheumatism because the willow grew along the streams and the cause of rheumatism was supposed to be getting wet. It was probably presumed that nature had put these remedies close to the cause of the diseases that man might be the more likely to discover them there. Nor was Hahnemann responsible for that homeopathy that produced emesis as a cure for vomiting or purgation as a cure for diarrhea, though it might have added to his fame if he had.

Hahnemann's homeopathy was based upon one single principle—the trial of drugs upon healthy individuals. This he called "proving." No other hypothesis entered into the system. It was assumed, and he attempted to prove, that if a drug will produce a certain train of symptoms when administered to a healthy individual, that same drug in minute doses will cure a disease characterized by like symptoms. It was, and is now, a well recognized fact that in the treatment of many ailments many drugs were beneficial when given in small doses which when given in large doses produced a similar condition to the one under treatment. Hahnemann proclaimed this as a universal, infallible law in the alliteration "*Similia Similibus Curantur*." Rational medicine will ever deny the universality of this ipse dixit of Hahnemann and it will further deny Hahnemann's dixit that "all real cures by remedies, in every age, have been according to this law," which he calls the "law of similars," "though the physician prescribing the remedy was not aware of its homeopathicity to the disease." Hence, when we speak of a certain drug being homeopathic to a certain disease we mean that it will, if given in sufficient quantity, produce symptoms similar to the disease. For example, we may mention arsenic in cholera, ipecac in dysentery, mercury in syphilis, *cantharis* in cystitis, *stramonium* in asthma.

In order that you may not be confused as to the real meaning of the word "homeopathy," let us look up its derivation. It comes from two Greek words, "*homoiōs*," meaning "like," and

"*pathema*," meaning "disease," and simply means the prescribing of a drug which will produce in a healthy person symptoms like the symptoms of the disease which one is treating, and has no relation whatever to the prescribing of "home" remedies. Neither has it any relation to the dispensing of his own remedies by the physician, although many people have this false notion of it, due no doubt to the custom that homeopathic doctors have of always furnishing their own medicines, at present not a necessity, but a necessity in the time of Hahnemann and for many years afterwards, on account of the fact that druggists were either unable or unwilling to furnish medicines prepared according to homeopathic formulae. And this very fact, indeed, drove Hahnemann out of Leipsic, for there was a law in Prussia at that time prohibiting physicians from dispensing their own medicines.

But before going further, that your information as to the originator of homeopathy as a distinct school of medicine may be correct, let us turn our attention to Samuel Hahnemann, the man. The son of a painter of porcelain, he was born in Saxony in 1755. His father being an educated man, the son became an accomplished scholar at an early age, becoming especially accomplished as a linguist. He was a student at Leipsic at twenty, studied medicine at the University of Vienna, after which he became family physician to the governor of Transylvania for two years, when he entered the University of Erlangen, and graduated from there in 1779. Hence it must be acknowledged that he was an educated man. His early medical life was, however, either unsuccessful from a medical point of view, or he was afflicted with a wanderlust which did not permit him to stay long in one place, for he practiced in at least nine different towns in ten years, and wrote at least ten works on scientific subjects, becoming in the meantime a Fellow of the Academy of Science at Mayence, when he gave up medicine, returned to Leipsic and made a precarious living translating for publishers. His idea of founding a new school of medicine probably arose while engaged in his work as a translator, especially during his translation of Cullen's *Materia Medica*, in which his footnotes demonstrate the trend of his thoughts.

Cullen was an iconoclast, a medical heterodox, whose work was probably in advance of his day, and many of his ideas took root in the mind of Hahnemann; but Cullen tried to be rational, and it is out of Cullen's explanation of the action of *cinchona* in malaria

that the thread-bare story of Hahnemann's discovery of the law of similars arose. Cullen said cinchona cured ague because it was a bitter, astringent tonic, and an aromatic roborant; while on the other hand Hahnemann claimed to have proven that cinchona would produce all the old well recognized symptoms of ague, without the chill; he proved it upon himself.

The plasmodic cause of malaria not then being known, of course the rationale of the *modus curandi* of cinchona was likewise unknown.

From now on Hahnemann becomes a full-fledged medical heretic, and, like most propagandists, his life was full of persecution and gall, and he was located in so many places that to speak of him as Herr Doctor Hahnemann, of Leipsic, M. le Docteur Hahnemann, of Paris, or the Sage of Coethen is equally equivocal. I only give these few lines in the way of biography to show that, contrary to present day fakes, homeopathy was founded by an intelligent man, who presumably had no sordid motive, but who subjected himself to persecution because he believed he was establishing an infallible law of cure, and thought, as the early Christian thought, that it was his duty to preach the gospel of homeopathy to all the world.

Returning to his law of cure, and quoting from the "Organon of the Art of Healing," he says: "In accordance with the maxim that 'si non juvat, modo ne noceat,' the homeopathic physician was to administer but one most minute dose at a time of a carefully selected medicine in a case of disease; to allow this dose to act upon the patient, and to terminate its action. I say 'most minute,' since it holds good, as an incontrovertible homeopathic rule of cure, that the best dose of the correctly selected medicine will always be the smallest in one of the high potencies for chronic, as well as acute diseases—a truth which is the invaluable property of pure homeopathy, and which will continue to stand as an imperishable barrier to shield true homeopathy from quackery so long as allopathy," (and the translator adds, no less the modern mongrel sect composed of a mixture of allopathy and homeopathy—so-called homeopaths) "continues, like a cancer, to undermine the life of suffering men, and to destroy them by large doses of medicine." But he goes on to say that he is not opposed to giving a few extra doses more than the single one does, if one is not enough; but no medicine should be continued more than two or three consecutive days.

We observe how this rule acts to the advantage of the homeopathic practitioner in allow-

ing him to make frequent visits that he may observe the slightest variation in symptoms and change his medicine accordingly, frequently making three or four changes in the same day. As an illustration let us look up the treatment of syphilis. The patient must call at the office each day. The mercurials are given in low potencies, first or second. Beginning with *mere viv* or *merc dule*, there is a change, with the slight variation of symptoms, to *merc corr*, *merc bin*, *merc prot*, *merc cyan* and throughout the dozen salts of mercury, perhaps returning to the first and going through the list, but, mark you, "merc" is always there; but they are technically following the law laid down by Father Hahnemann that no drug should be given more than two or three consecutive days. Very few laws can be passed which the determined violator will not find some way to violate. The modern homeopath, in this respect, not only makes small effort to keep the letter, but violates most shamefully the spirit.

The preceding statements disprove the idea prevalent that the modern homeopathic practice of giving frequently repeated small doses of a drug is a product of Hahnemannism. Not so, for listen to what Hahnemann says: "A number of small doses, repeated for the same purpose in quick succession, will accumulate in the organism, and will produce the same evil result" as if given in large doses.

In several places in this paper you will observe the word "potency"—a high potency, a low potency, etc. To convey a clear idea of homeopathy, a definition of this word from a homeopathic point of view must be given. Take for example a crude drug. This is labeled with the Greek letter theta or phi. Using the decimal scale of potentization, we would take one part of the crude drug and triturate it thoroughly with nine parts of a menstruum to get the first potency, which is marked 1x, meaning one part in ten. To get the second potency one part of the first potency is triturated with nine parts of menstruum, and labeled 2x; for the third potency one part of the second potency is triturated with nine parts of menstruum; to get the thirtieth potency, one part of the twenty-ninth potency is triturated with nine parts of the menstruum. The liquids are potentized in the same way, except a liquid is used as a menstruum. Different menstrea may be used. At present sugar of milk is used for solids and alcohol for liquids. Hence, when you look over the shelves of a homeopathic pharmacy and see a drug labeled "theta," you may know it is a crude

drug. If in liquid form it is mother tincture, nearly equivalent to our fluid extract. If labeled 1x it means one part in ten; if 3x one part in a thousand; if 6x one part in a million; if 30x one part in one with thirty ciphers added. The thirtieth was Hahnemann's favorite potency in his old age, but instead of using the decimal scale he used the centesimal scale in which one part of the drug was triturated with ninety-nine parts of menstruum, thus making his thirtieth potency such an infinitesimal division as to be beyond human conception.

Now it would be a serious reflection upon the intelligence of a homeopathic physician to accuse him of thinking that a single dose of the thirtieth potency of *carbo vegetabilis* would cure a case of flatulent colic; yet it was given by Hahnemann. I do not think it is given today, except as a placebo. Let us turn to Hahnemann's conception of disease and perhaps we can read between the lines his reason. "Diseases are not, and cannot be, mechanical or chemical changes of the material body; nor are they dependent upon material morbid matter, but merely dynamic disturbances of life," and further on, "spirit-like medicinal powers of crude substances are developed to an unparalleled degree by means of potentization." Hence disease, which is only a dynamic disturbance is counteracted by a dynamitized or spirit-like power given to drugs by means of successive dilution. No doubt, a degree of dilution adds to the efficacy of some medicinal substances. For instance, one grain of crude calomel will not have as powerful effect as ten one-tenth grain tablet triturates, and I have observed in the administration of potassium iodide that five grain doses well diluted give as powerful effects as fifteen or twenty grains given in a concentrated solution. These facts have been the property of the school of rational medicine for years. But to say that one grain of K. I. in a barrel of water will have a greater effect than one pound in a barrel is an *ipse dixit* of Samuel Hahnemann. The added efficacy of the calomel in trituration is doubtless a true potentization due to fine division and separation of the insoluble particles, but we know it takes more of the one-one hundredth grain tablets than of the one-tenth grain tablets of calomel to act upon the sluggish bile. While we deny that dynamization, after a certain point adds any power to drugs, we are willing to confess that we have seen splendid results in the way of a copious bowel action by the giving of a one-grain tablet of *saccharum lactis*. We will not admit that there was any spirit power present in the drug,

but we will admit that there was a mesmeric power in the prescriber. It is a historical fact that might well be mentioned here, that Hahnemann was an expert mesmerist, and acknowledges that he frequently made use of mesmerism in his practice, and may we not surmise that his wonderful results from high potencies were simply the hypnotic power of his wonderful personality?

Hahnemann's ideas in the matter of chronic diseases are the most unfortunate heritage left for modern homeopathy to explain away. These constitute his psoric theory, which assumes that all chronic diseases, and by chronic diseases he names those that "constantly extend, and will never cease to torment their victims to the end of life if left to themselves without the aid of specific remedies for their relief," depend upon the three diatheses known by another alliteration, of which Hahnemann was noted, as syphilis, sycosis and psora.

First—Syphilis, "if left to itself will become extinct only with life." We will not argue the question, but simply say, "We don't believe it."

Second—Sycosis (this has no reference to modern sycosis or barbers' itch)—Cauliflower excrescencies—if left to itself is inextinguishable by the vital force. The destruction of the cutaneous excrescencies does not cure the disease. Modern pathology does not recognize this as an integral disease, but classifies these excrescencies under the names of the diseases producing them.

Third—Psora is the hydraheaded Hahnemannian monster of incomparably greater significance than either syphilis or sycosis. While chancre and the cauliflower excrescencies mark the internal specific nature of syphilis and sycosis, psora, after complete infection of the entire organism, indicates its origin from an internal and monstrous chronic miasm by a peculiar cutaneous eruption, sometimes consisting of only a few pimples, with intolerable itching and specific odor. This, you will recognize as our old friend, the itch, long since known to be due to an insect and easily cured by killing the insect. But Hahnemann claimed that his psora was the fundamental cause of diseases previously classified as nervous debility, hysteria, hypochondria, mania, melancholia, idiocy, madness, epilepsy, rachitis, caries, cancer, varices, gout, hemorrhoids, icterus, cyanosis, dropsy, amenorrhea, hemorrhages from stomach, nose, lungs, bladder and uterus, asthma, suppuration of the lungs, impotency and sterility, migrain, deafness, cataract, glaucoma, calculi, paralysis and deficiencies of the

special senses. "Without doubt," says he, "the smoldering contagion has gradually passed through several hundreds of generations and many millions of human organisms, thus reaching an incredible degree of development," by which we may therefor comprehend how it became developed into countless forms of disease peculiar to the human race.

It is well to conclude this paper by drawing a parallel between the homeopathy of Hahnemann and the homeopathy of today. Many of us will wonder and have wondered what is the *raison d'être* of the present school of homeopathy. To condemn modern homeopathy, however, simply because of the proved erroneous views of Samuel Hahnemann would be as senseless as to condemn modern Christianity on account of the errors of the founders of Christianity. But as honest men we can but condemn the lurking hypocrisy that to maintain a position that it never earned, hides behind a name than appeals to the credulity of people ignorant of its founder and still more ignorant of its methods. It has nullified its foundation and suppressed the truth about its founder, and, outside of its reliance principally upon the law of similars in therapeutics, it possesses none of the characteristics stamped upon it by Hahnemann, and has no reason for existence as a separate school of medicine, except to supply a demand created by the sentiment of opposition to rational medicine brought about by false and erroneous conceptions of the humane and life-saving efforts of the regular profession in the enactment and enforcement upon the people of laws for their own protection:

Hahnemann gave inappreciable doses at long intervals.

Modern homeopathy gives appreciable doses for palliative effect and gives small doses frequently repeated. For instance, a patient is given a bottle of pellets saturated with the third potency of aconite, and instructed to take one every fifteen minutes.

Hahnemann gave only one drug at a time.

Modern homeopathy gives several drugs at a time, at alternate hours, or even in combination tablets; all homeopathic pharmacies list combination tablets.

Hahnemann ignored pathology.

Modern homeopathy recognizes pathology and teaches it in homeopathic colleges.

Hahnemann denied material cause of disease.

Modern homeopathy recognizes material cause of disease, teaches bacteriology and microscopy, and makes use of modern serotherapy.

Hahnemann never gave the same drug more than a few days continuously.

Modern homeopathy gives same drug over long periods, though frequently changing from one salt to another, the metallic base remaining the same, as the different salts of mercury and iodine.

Hahnemann did not believe in specific medication, except as prophylactic, like belladonna for scarlet fever.

Modern homeopathy believes in specific medication to a certain extent. For example, belladonna is a specific for scarlet fever, modifying its course, preventing complication, and protecting against infection. *Veratrum viride* is a specific for pneumonia if given early enough. *Bryonia* and *rhus tox* are specifics for rheumatism. *Gelsemium* is a specific for migrain. Mercury is a specific for syphilis. Arsenic, copper and *veratrum album* are specifics for cholera. *Ipecac* is a specific for hemorrhages. *Calcarea carb* is a specific for rickets. *Hepar sulphur* is a specific for boils, etc.

Hahnemann based his medication on the totality of the symptoms, never giving drugs for the antipathic effect on a single symptom.

Modern homeopathy usually bases its medication on the totality of the symptoms, but frequently gives drugs for antipathic effect, such as morphine for pain.

Hahnemann never used the pharmaceutical monstrosities turned out by the manufacturing chemists.

Modern homeopathy is a liberal patron of pharmaceutical specialties, and noted for its propensity to write recommendations for nostrums.

Hahnemann did not give tonics.

Modern homeopathy gives tonics liberally.

Hahnemann opposed local medication for cutaneous disorders.

Modern homeopathy uses local medication freely.

Hahnemann believed in the efficacy of vaccination as a preventive and alleviator of small-pox.

Modern homeopathy as a rule denies this efficacy, but advocates a method of giving vaccine matter internally, though some condemn the latter method and use vaccination after the manner of Jenner.

Hahnemann did not practice the application of chemical substances as medicines to supply supposed deficiencies in the organism.

Modern homeopathy makes free use of such substances, for instance, in the use of the so-called twelve Schussler tissue remedies.

Hahnemann's homeopathy had a *raison d'être* in its rebellion against the prevailing practices of the old school. It possessed an element of honesty not existent in the modern school, even though it has fostered all the hypocritical sects of medical nihilists that infest our country with mushroom systems of healing.

MEDICAL FEE-BILLS.

W. B. PATTON, M. D.,
Springfield, O.

[Read before the Ohio State Medical Association, Cedar Point, 1907.]

The practice of medicine is by the very nature of things altruistic. Let an epidemic threaten the community and every physician worthy of the name is willing and anxious to do everything in his power to locate the source of the infection and to instruct the citizens of the community how not to become victims of its ravages. Medical men devote years of painstaking effort in hospitals, in laboratories and in dissecting rooms, seeking the cause of disease in order to find methods of successfully combating it. The height of this altruistic spirit has been reached in the present time when we, as a profession, are rejoicing that we are living in the dawn of a new era—an era whose chief aim is the prevention of that by which we obtain our livelihood.

In our medical society meetings we listen to scientific and ultra-scientific papers ad infinitum, filled with incontrovertible facts, which, sometimes according to a quaint philosopher, "ain't so" facts, which the next generation will easily prove wholly absurd. There are no doubt those here today who will feel that it is more or less of a sacrilege to intrude a paper on a subject so vulgar as fee-bill into this holy place, where only scientific thoughts should be aroused; where only scientific words should be uttered.

Far be it from the intention of the writer to advocate a spirit of commercialism or anything that tends to lower the cherished ideals of our profession. What with dividing of fees, contract practice, price-cutting and in the same category, only a little lower, newspaper advertising, we are sorely enough afflicted with that sort of thing already. It is a far cry from commercialism of that kind to simple, straightforward business methods, the absence of which in our profession heretofore has become almost proverbial.

As a profession we are permitted to see and hear a great deal of the prosperity of recent

years, but that is about all we have had to do with it. We stand around like poor boys at a frolic. We are compelled to pay modern prices, twenty-five to one hundred per cent. higher than they were a decade or so ago, for everything under the heavens we buy, and receive fees for our services based on schedules so ancient that the memory of the oldest living man fails him as to the year of their adoption. It is time for us to lay aside sentiment and to consider our own material welfare with a little of the energy, with a little of the faithfulness that we have devoted to the welfare of others. It is time for every county society in the State to adopt and live up to a modern medical fee-bill.

The purpose of a medical fee-bill is not for the restraint of trade, not to create a monopoly, nor in any way to injure any person. It is simply for the purpose of uniformity; for the purpose of having something tangible for physicians to show their patrons or a court of justice if need be what is the usual and accepted standard of fees in the community. Such is the ideal purpose of a fee-bill. There is another purpose of such a bill which it is sometimes necessary to consider, and whenever it is necessary, it is just as proper and as will be shown later, just as legitimate as any other; the increase of fees. The county society of which I am a member has recently been through the experience of adopting such a bill, and it is of this experience and the methods of adoption, and something of the workings of the bill with which this paper will deal, with the hope that it may be of some service to others who may be in the same condition that we were before its adoption.

Previous to the adoption of the present bill, June, 1906, there had been none adopted since 1887, and there had been none of those obtainable for several years. Nine out of ten of the offices of the physicians had no bill of any sort. As a result chaos reigned supreme. Fees for residence visits ranged from 37½ cents to two dollars; office visits from 25 cents to one dollar; confinement cases from two dollars and a half up. In the absence of a proper standard each man of course charged about what he thought his services were worth, and the twenty-five cent fellow was the only one who overcharged exorbitantly.

There was no doubt of the necessity of a new bill; for several years there had been a constant demand for it. Committees had been appointed at different times, but no report was ever submitted until the spring of 1906. The committee appointed then spent several weeks in drafting a bill which they felt would be fair and just both

for our profession and for the community. As soon as the report was ready a meeting was called of all the physicians of the city, whether members of the society or not. The items of the report were considered seriatim, freely discussed, and after a few changes it was adopted as a whole. The bill as it now stands is not the work of any individual, nor of a single committee, but is the product of the combined wisdom of the profession of our city.

At the top of the schedule of fees the following sentence was placed: "For uniformity, we, the undersigned physicians of Springfield, Ohio, hereby agree that this fee-bill shall be our minimum rate of charges." At the bottom of the schedule and at the top of the signatures, the following: "Our honor as physicians and gentlemen is hereby mutually and voluntarily pledged to adhere firmly to the above fees in all cases, except where charitable considerations may induce a departure therefrom." And then the signatures were secured. No man was coerced to sign; no man was even urged to do so. The only ones who hesitated in the least did so because they feared that it would be impossible to get men to live up to it. Every man who was asked, signed, save one who refused because he happened to discover that he had been asked to sign last. As soon as the signatures were secured a plate was made of the bill and the signatures, and now you will find in practically every physician's reception room in our city a copy of this bill with the fac simile signatures of our local profession. Those signatures are there for all who come to read, and they will be there throughout the ages, to praise or condemn the signers as honestly supporting or as contemptibly failing to live up to that to which they have pledged their honor.

Before the adoption of the bill our minimum fee for a house visit was one dollar and for an office call fifty cents. Under the new bill it is one dollar and fifty cents, and seventy-five cents, an increase of fifty per cent. It looked like a very difficult undertaking to fix a date arbitrarily, on which our fees would be advanced one-half, but it proved to be the easiest thing in the whole procedure. Several weeks before the bill was ready for distribution, the daily newspapers gave very satisfactory accounts of the proposed bill and of the necessity of an advance in fees. About June 1, there appeared another news article saying that the new fee-bill would go into effect on June 15. When the day arrived the public was so well educated on the fee-bill question that it just went into effect itself. There was surprisingly little opposition to it.

Our bill has now been in effect a little more

than a year and we feel that we are in a position to judge somewhat of its workings. Has it been a success? Having been a member of the committee that drafted the bill, and having called personally on the majority of the signers, I have been in the storm center of the fight and feel that I am in a position to answer the question. For the first few months after the bill was adopted there was scarcely a week when there were not complaints, when one man after another would not say in disgust that "It is no use," "The bill is a failure," etc., etc. Notwithstanding these reports and these discouragements and the raging of the elements, there is no question but that the bill has been a success greater even than could have been reasonably hoped for when it was adopted. At the end of the first year the complaints have already grown materially less. True, there are still flagrant violations, but there is no doubt but that even the violators are charging better fees than they ever did before. Certain men in our community and in every other community have always been price-cutters, and always will be. You know them in your community, we know them in ours, but it is a tremendous gain when men who have been in the habit of charging twenty-five and fifty cents, raise to fifty cents and a dollar.

One of the especially beneficent results of our new fees has been in the matter of night visits, for which it had formerly been the custom to charge from one to two dollars. Our new rates provide for double the day fee or three dollars. Every physician who has expressed himself in regard to the matter has said that his number of night visits has been very materially decreased.

The last meeting of the year in our society was devoted to the discussion of the new bill which had then been in effect about a year. A paper similar to this one was read and very freely discussed. Practically all of the speakers were well pleased with this first year's experience. Some of them said it had been a God-send to them. There is no doubt but that it has done more to elevate our local profession than any one thing has ever done. Even this slight advance in fees has had a tendency to make us feel a little more that we are professional men and not mere "pill peddlers. Oliver Wendell Holmes said a long time ago that physicians ought to be something more than "drawers of blood and hewers of members," and better fees ought to give men more time for self-improvement, more time for reading both professional and general.

Every man here knows why men cut prices. Usually it is for just the same reason that the "lost manhood specialist" flaunts his filth before

the eyes of decent men—to get business. We ostracise the one and receive the other with open arms. Which one does the medical profession greater harm, the one who makes no pretense of being decent, or the one who pretends to be decent, signs a fee-bill and violates his pledged honor the same day? There are some price-cutters, perhaps, who are not wholly bad. They base their reasoning upon a misapprehension. They think that a physician, in order to be successful, must have a mob at his heels; to them an hour or two spent in reading or in studying a case is lost time. They are too busy to write papers for or even to attend medical society meetings. If the pursuit of the mob were an evidence of ability, in Springfield we would have to acknowledge as our leader the late lamented Lida Hazlitt, the Divine healer prosecuted by our society last year, with her seventy patients daily. But don't think for a moment that Lida was a price-cutter. Again, price-cutting is an open confession of a sense of inferiority, and the man who has that feeling ought to be pitied rather than wholly condemned.

If you will pardon a digression at this point, I wish to speak of a matter concerned more, perhaps, with ethics than with fee-bills, but at the same time having to do with fees—our relations to the clergy. It has always appeared amusing to me that some physicians, most of whom are not especially pious, nor even religiously inclined, should be so solicitous about the welfare of preachers that services are rendered to them free of charge. There are no doubt cases where this has been done from charitable motives. The average preacher has as large an income as the average physician, and a much larger income than the average man in the community. Is it done in accordance with the altruistic spirit of our profession? Not by any means. In the great majority of cases it is nothing more nor less than a species of graft. The preacher who receives his medical services free of charge is expected to pay by using his influence in his church and community for the physician who rendered the service. It is a mighty cheap sort of barter and often results in pernicious meddling. The preacher who thus prostitutes his calling, and the physician who attempts to get business by dangling to the coat-tails of a preacher are about on a par, and neither of them are any great credit to two of the noblest callings of God among men.

So long as men are men there will be those who will take advantage of others; there will be those in every calling in life who will be willing to sell their birthright for a mess of pottage. There will always be those who will cut prices

and seek to build themselves up by tearing others down. That fact, however, does not justify us in failing to do something towards mitigating this evil.

At the meeting of our society, referred to above, a resolution was adopted creating a grievance committee, to whom all complaints of violation of the fee-bill shall be referred for investigation. If they find that a man has been guilty of cutting prices, and that there are no mitigating circumstances, his name will be read out in open meeting of the society. No penalty has been provided. It is too early to know what such a committee will accomplish, but the very fact that it exists ought to have a tendency to stiffen up the backbones of some of the weaker brethren.

While as individuals, many of us feel that price-cutters deserve and ought to be penalized, even to the extent of expulsion from the society, it is probably not advisable to resort to such severe measures. It is not difficult to imagine what a hue and cry would be raised about commercialism, trade-unionism, etc., should it be attempted. It should not be necessary even to mention such methods among professional gentlemen. So far as the legal status of the matter is concerned, medical societies undoubtedly have the right to establish a schedule of prices and compel their members to adhere to it, even under a penalty of a fine or of expulsion from the society. They also have a right to compel their members to have no professional dealings whatever with those who do not obey the rules of the society. There is no statute in Ohio, neither is there a court decision bearing directly on this subject. There is a somewhat analogous decision handed down by Judge Dempsey, in 1901, in the Superior Court of Cincinnati, Ohio, N. P. P. 436, in which he discusses this subject in many of its phases.

The only way to deal with this species of human depravity at present, is in that, expressed somewhat vaguely, to be sure, but perhaps best by moral suasion. Again, referring to our fee-bill meeting after several members had spoken of their experiences, they began to call on others among them, some who were well-known price-cutters. It was pitiable as well as amusing to see them squirm as they tried to tell how much they appreciated the new fees. The next day the newspapers gave an account of the meeting, and how the price-cutters were scored, and reiterated the fact that the established price for a residence visit was one dollar and a half. This is an example of the legitimate uses of printers' ink for our profession.

One meeting each year of a county society can

be profitably devoted to such a meeting as the one mentioned, call it a business meeting or a fee-bill meeting or whatever you please, just so it brings these matters to the attention of the members and gives them an opportunity to express themselves along these lines. It will not be scientific, but science will not suffer especially and the business side of our profession may be benefited sufficiently to justify the loss.

Something can be accomplished by the creation of public sentiment against the price-cutter, by the judicious use of printers' ink or by open meetings of the medical society, but more than all by the individual physician as he comes in daily contact with his patrons. Let him tell them of the evils of price-cutting, how it means lowered ideals, how it means cheaper service, and more than all how it means a lowering of the moral sense, such an essential element in the man to whose honor they must entrust as much as they do to their physician. Ask them to compare their bills for medical services for a year with a family that employs a price-cutter, and in nine cases out of ten they will find that it costs less of money, and infinitely less of worry and of anxiety to employ a man who has pride enough and decency enough to charge fees that he has pledged his honor to charge.

PEMPHIGUS FOLIACEUS—REPORT OF A CASE.

EDWIN D. TUCKER.

Dermatologist to St. Vincent's Hospital,
Toledo, Ohio.

Patient was referred to me by a general practitioner in December, 1903; case reported to the Academy of Medicine of Toledo and Lucas County in May, 1904.

Frenchman, 61 years old, married, and by occupation a chemist and druggist.

Family history negative, no previous skin disease or syphilis.

Has had several attacks of what he calls muscular rheumatism with some pain about joints, but no swelling or inflammation.

Patient is of a nervous type, about 5 feet 6 inches in height, thin, weighs about 140 pounds; otherwise enjoys very good health.

In August, 1903, while traveling through Indiana on business, there appeared upon his back in the region of the left shoulder a small blister or vesicle about the size of a split pea, that had a burning, stinging sensation and soon ruptured. Another spot appeared upon the left side and one

very near the umbilicus. As near as I could learn from him, all within a few days.

On these lesions a crust would form, but was easily removed, either by accident, from the movements of the body and clothing, or by being picked off by the patient. The crusts were very thin and when removed they left exposed a raw red surface that increased in size.

December 29, when I first saw the case, I found scattered about the back and chest bullæ of different size and in all stages of formation, some, the smallest were about one-fourth inch in greatest diameter; others as large as a goose egg. The bullæ were flat, not high, some were small and looked like a collapsed vesicle, the exudate which first appeared as clear serum in a short time became yellowish, would bag into the lowest portion, when the bullæ would rupture and the walls collapse, the exudate seem to undermine the surrounding skin, and when the bullæ covering was removed it left a raw red weeping surface that soon became purulent, the remains of the bullæ would roll or hang in tags, giving it the characteristic picture of pemphigus foliaceus.

The lesions did not extend deep, but just seemed to denude the derma, leaving the papillary layer exposed.

On the back between the scapules was a patch about two inches in diameter with the bullæ covering gone, and about the edges were tags of epidermis with serum and pus underneath.

Another large patch presented the same characteristics on the lower left scapular region, the site of the first lesion.

Underneath the arms, in the axillary space, the epidermis was entirely gone, and just below on the right side was one of the largest bullæ with its lowest portion filled with a yellowish exudate.

On the arms and over the shoulders the same condition was found, also over the chest, but the lesions were more scattered.

The mucous membrane of the mouth, nose and throat was involved.

From December 29 to January 6 the disease progressed with rapid emaciation and loss of strength. The back from the hair line at the neck to the waist line finally became entirely denuded of epidermis, due to the coalescing of the bullæ, and the undermining with the falling of the tags of epidermis, leaving a weeping surface. The chest and abdomen were in nearly the same condition with the continuation of new bullæ, rupturing and coalescing, forming larger patches.

A thin film would cover the lesions that would

be rubbed off in large stringy flakes by the movements of the patient.

The mouth was very sore, the breath foul, patient complained of the mouth getting dry and tongue stiff. The power of speech was not entirely lost, but it was difficult for him to talk. The discharges from the nose were purulent and streaked with blood.

January 6 there seemed to be an improvement, bullæ ceased to form, the forearms took on a healthy appearance and in places seemed to heal with thin pinkish skin. The exudate had ceased and islands of new skin were forming. The lesions on the chest were looking much better and recovery seemed hopeful.

The evening before he died, which was January 9, a bulla appeared upon the lower eyelid, which did not rupture. The temperature ranged from 100° to 104°. From a man of 140 pounds, he fell away in a short time to a mere skeleton, emaciation was very rapid and he became so weak it was an effort to move in bed. Bowels were loose and he passed dark-colored stools.

His previous treatment had been ointments, lotions, dusting powders and antiseptic washes. He was given a light nutritious diet of milk and eggs. Continuous baths were refused by the patient and family.

Ointment of balsam Peru gave the best results.

Opium was given to relieve his suffering and to produce sleep.

Dr. Grosh has very kindly given me the privilege of reporting the following case which occurred in his practice during 1903:

Patient, a woman 48 years old, married, passed the menopause two years previous.

The lesions first appeared in the mouth and a few days later a bulla occurred upon the left leg below the knee, and in three weeks from the first occurrence the lesions became general.

The eruption at first appeared as tense-walled bullæ, with clear contents; these soon changed into the typical picture of pemphigus foliaceus. The lesions would coalesce, forming large patches until the whole body became involved; the patient rapidly losing both weight and strength.

Dr. Grosh used the continuous bath of 1-20.000 bichloride in normal salt solution. The baths were continued until the bullæ ceased to form.

She has had several relapses since, but when the bullæ first appear, she uses the bath as before and checks the disease.

I do not wish to enter upon a lengthy discussion on the theory of the classification of bullæ eruptions, but I do hope to see the day, and not far distant, when our bullæ eruptions will become a definite disease.

If the Dermatological Congress at one of their meetings could only agree upon a nomenclature, the confusion which now exists in the classification would cease and our system and disease would then become more of an exact science.

Many skin diseases have received new names in every language in which the disease has been described, and I am sure there are many present who feel just as I do the confusion in which they find themselves when naming some dermatosis, and their chagrin when they are confronted with scores of names and the disease itself described under each as a new one, it is most bewildering. Pemphigus unfortunately is one of these groups of diseases. Martin enumerates 97 varieties. Cazenave, in 1844, was the first to describe this variety of pemphigus and named it foliaceus.

The descriptions of this variety of pemphigus are nearly alike the world over, and all writers draw the same picture.

Flaccid bullæ raised or the epidermis just slightly loosened in irregular patches, with an exudate of serum and pus extending underneath the surrounding skin.

If there is a large amount of fluid it bags into the lower portion, which may be turbid almost from the first, and soon becomes purulent.

The bullæ rupture leaving the underlying corium as an exposed exuding surface. When the discharge is wiped away it is stringy and the remains of the bullæ covering hang in tags from the edges, underneath which there is a collection of pus and ill-smelling serum, that soon contaminates the atmosphere of the room with an odor that is nauseating.

The exposed corium is sometimes partly covered by a thin flaky crust that is very easily removed by the movements of the patient and the changing of the dressings.

There may occur islands that have the appearance of healthy skin and encourage the patient and physician to greater activity, but these islands disappear and the affected area has the same appearance as before.

The disease spreads rapidly, new bullæ forming and extension and coalescing of others until a large surface is involved that may take in the upper part of the trunk, back, or chest, or whole body.

The mucous membranes become affected and bullæ formation takes place; in fact, I believe that the whole digestive tract may become involved from the mouth to the anus. Bullæ form on the eyelids, especially the lower, and cause them to become ectropic.

There is a feeling of stiffness and tension of the skin when the patient is exposed long to the

air without dressings, because of the drying of the exudate.

The patient wastes away rapidly and in a short time has a cadaverous look, his face is pinched, eyes sunken, the lips drawn, tongue thickened, dry and cracked, and it is very hard for the patient to talk and swallow.

Pemphigus foliaceus may occur independently or follow pemphigus vulgaris or some other form of dermatitis. The cause is still a disputed question, but the great majority seem to lean towards infection.

Zeisler, in his paper read before the Section on Cutaneous Medicine and Surgery at Atlantic City, brings forth this theory, and it appears the most rational.

Crocker mentions chills as having a distinct influence in some instances in producing pemphigus foliaceus.

Investigators have examined the contents of the bullæ and repeated blood examinations have been made, but no definite conclusion has as yet been arrived at. The disease is rare, and if each case in the future is studied along a laboratory method perhaps some light will be thrown upon the subject and a definite causation found. Just as the search for the syphilitic spirochætæ pallida became known.

237 Michigan St.

DISCUSSION.

M. Metzenbaum, M. D., Cleveland, O.: About four years ago, a young man, a plumber by trade, developed a skin lesion, and while I never saw him the diagnosis is said to have been either pemphigus foliaceus or pemphigus malignans. He passed away. The nurse who took care of him contracted the disease, and she, likewise, passed away. His brother, who was then a medical student, developed nothing until after he returned from Europe about one year ago. He then manifested symptoms of the disease and about six weeks ago he died from the disease. He has another brother who now has the disease.

M. L. Heidingsfeld, M. D., Cincinnati, O.: The subject appeals to me as of great interest. I have seen continued cases of pemphigus in my personal experience and they interest me exceedingly. The European authorities have always been very averse toward making a diagnosis and are apt to confound Dermatitis Duhring with pemphigus. They make this distinction: Those that get well are Dermatitis Duhring, and those that die are pemphigus vulgaris. There is not much reason about this distinction, but probably there is something to it. This small model, one of the first I made, is of a very peculiar type of pemphigus. This case was seen by another doctor before it came into my hands, and diagnosed dermatitis herpetiformis Duhring, and it showed small vesicular lesions over the body. When the case came to me it presented the clinical features it presents here: Small lesions scattered all over

the body (this is taken from a portion of the arm), more or less circinate and vesicular, but the vesicles are narrow and shallow, and I made a diagnosis of pemphigus circinata from what was shown at that time. In pemphigus the lesions change their character very rapidly, even in the solitary and malignant forms the lesions may assume the bullous form or become erythematous, and the disease may remain so for a long time or it may run through two or three types, beginning with the erythematous, followed by the circinatus type, and in this case it turned out to be bullous pemphigus with large bullæ all over the body, and the malignant form of pemphigus. The patient had a very tedious time, was in the hospital for two or three months, nearly all of that time in water baths and wet dressings the rest of the time, and made a tedious recovery. The mucous membranes were early involved, the nutrition much impaired, the eyes were inflamed, the mucous membrane of the nose was involved, and the odors accompanying the disease made it very distressing indeed. It cleared up entirely, the skin became smooth, the patient left the hospital in good condition. The gastro-intestinal disturbance never entirely disappeared, though she improved materially. Later she developed lobar pneumonia and passed away.

Another case occurred in a young Jewish boy, and all these cases have been in Jewish individuals. I believe that race is predisposed to this form of trouble. This boy showed more or less gastro-intestinal disturbance, and I believe some day the cause will be sought for in that direction.

In another instance there was a bullous eruption over the lower extremities of severe type in a woman thirty years of age. The lesions were rather peculiar, small bullæ, and the diagnosis rested between pemphigus vulgaris and an impetigo disturbance. I was inclined to make an unfavorable prognosis with the other physician who saw the case with me. The only thing we could reconcile was the fact that the woman was not pregnant, and we told the family that otherwise we would have given an unfavorable prognosis. We wanted to take her to the hospital and concealed it from her for some reason or other, and in going over the case a few times we finally found one point we had overlooked: was she taking drugs of any kind? We inquired of the previous physician, who had given her bromides for a year or more. I said that is the whole solution of it. We stopped the bromides, the case cleared up, and we received the credit of making a remarkable cure.

In another case the boy has a circinate, bullous eruption over the entire body. He was in a terrible condition—the odor was very strong, the mucous membranes were involved and the mouth was in such a condition he could not take nourishment at all, and he was going down very rapidly. The bullæ were thick and heavy, with a bluish-red discoloration and some features did not present a clear case of pemphigus, and suggested dermatitis pigmentosa or possibly a drug eruption, but his previous physician assured me the boy had taken no drugs, only tonics. He was a messenger boy and it occurred to me there might be some syphilitic taint and gave him mild doses of iodides and the proto-iodide of mercury. The doses were

so small they could not affect the boy unless he had an idiosyncrasy, and the case cleared up in three or four weeks.

Another case of pemphigus vulgaris I saw was a rapid, acute type in which lesions covered a large portion of the body in a young Jewish man who just came from Europe. He was a powerfully built fellow, an athlete, and reached an unfavorable termination in about three weeks.

Dr. Deade: Were all these forms noticed in connection with syphilis?

Dr. Heidingsfeld: It was not in this last case.

Dr. Reade: Ordinarily, generally speaking, it is?

Dr. Heidingsfeld: No, I should not think so. pemphigus has the peculiarity of changing its type very rapidly, while some remain vulgaris type all the way through. Some change in a

few hours or over night, and some forms undergo that peculiar change. This case was small vesicles to begin with and became large bullae.

Dr. Reade: This patient was Jewish and I would like to ask if you have a reason for that. Is it a matter of diet?

Dr. Heidingsfeld: I do not know whether it is coincident. They have many cases in Vienna where they have a large Jewish element to deal with, but whether it is due to a highly wrought nervous condition behind the cases, like in other diseases, I do not know.

Dr. Reade: Would diet have something to do with it?

Dr. Heidingsfeld: Possibly diet might; I do not know.

Dr. Metzenbaum: The cases I reported are also Jewish.

SYMPOSIUM ON EAR

(Concluded from June Issue)

THE TREATMENT OF EARACHE WITHOUT OPERATION.

WALTER E. MURPHY,

Laryngologist and Ophthalmologist, The Episcopal Hospital for Children; Clinical Lecturer on Laryngology and Otology, Miami Medical College, Cincinnati.

[Read at Cedar Point meeting of the Ohio State Medical Society, August, 1907.]

The present day methods of examination of the ear allow of most thorough knowledge of the normal anatomical and physiological conditions existing in this organ, and consequently when pathological conditions arise we are well prepared to undertake their treatment in a systematic, judicious manner which will bring about ultimate results eminently satisfactory to both patient and physician. The first step in the treatment of these cases is a thorough knowledge of the conditions present, obtained by a careful examination of the external meatus, the membrana tympani and the nasal and pharyngeal mucosa. By this method we are able to determine the cause of the pain located in the ear. The various conditions which we are likely to encounter are furunculosis of the external canal, eczema, impacted cerum, neuralgia, erysipelas and otitis media. As the consideration of the medical treatment of these various conditions would require time far beyond that allotted to this paper, I will confine myself to the consideration of

earache as a symptom of by far the most important of these, namely, acute otitis media.

The application of medical treatment of earache due to otitis media must of necessity be confined to a period of from twelve to twenty-four hours. That is from the time of the inception of the congestive stage to the time when it becomes a marked inflammatory condition. Relief from the pain and accompanying conditions can be obtained by the use of appropriate remedies during this stage, but after the inflammatory stage has fully developed little can be gained and much lost by the continuance of this plan of treatment and the delay consequent thereto.

We must always bear in mind that the cavities of the nose, throat and ear through the eustachian tube form one body pathologically, and when one is affected the others are very liable to involvement.

Having determined a congested condition of the middle ear our attention is first directed to the naso-pharynx, where an acute congestion is also found to exist. (I shall enter somewhat minutely into the technique of the plan of treatment as some of the minor points are very essential to the success of the undertaking.) The nose and pharynx are cleansed with a warm alkaline solution, preferably sodium bicarbonate dr. i dissolved in one pint of water, used as a spray or douche. A cotton carrier, bent to correspond to the curvature of a eustachian catheter, is mounted with cotton and passed through the inferior meatus. The region about the fossa of

Rosenmuller is wiped gently and any small particles of mucus removed. By this procedure the small plug of mucus lodged in the opening of the tube can usually be removed. Should the swelling of the turbinated bodies interfere with the view or with the treatment of these parts, a spray of a solution of adrenalin chlorid 1-5000 in water will cause contraction of the parts sufficient to leave a clear field.

We now have a clean surface with an alkaline reaction, upon which the astringents to be applied will act much more readily. The cotton carrier is now mounted with a pledget of cotton dipped in a solution cocaine hydrochlorate, gr. XX; adrenalin chloride, dr. 1; aqua dist., oz. 1. The cotton must be compressed to remove any excess of the solution, thus preventing its dropping into the throat when pressed against the walls of the pharynx. The application of the above solution will materially diminish the congestion about the opening of the tube and also reduce the swelling of the tubal walls. These applications are repeated two or three times at intervals of from five to ten minutes. This is followed by the use of the menthol, camphor and liquid albolene spray every three or four hours, to aid in the relief of the inflammation of the nose and throat. In young children an ointment of twenty grains each of boric acid and biborate of soda and two grains of menthol to the ounce of vaseline may be used to advantage.

The condition of the drum membrane must determine the question of inflation of the middle ear. When there is retraction of the drum, inflation is undoubtedly the proper procedure; but when there is bulging of the drum showing a state of increased pressure from within, inflation is not advisable as the force with which the air enters the middle ear, no matter how slight, may be sufficient to cause a rupture of the membrana tympani—a condition we are endeavoring to prevent. The suction treatment through the nose may be applied in these cases. When inflation is indicated, the Politzer method of inflation is the proper one in these cases of acute inflammation, not only because it is more practical with children and nervous patients, but as there is an extensive congestion about the entrance to the tube, the use of the catheter will aggravate this condition. Especially is this true when the operator is not as dexterous and gentle in his manipulations as might be. The inflation must be done gently and only sufficient force used to separate the adherent walls of the tube.

After having treated the nose and pharynx as described, we turn our attention to the membrana tympani. There are few remedies when applied

to the external surface of the drum which will afford any relief, or be of any value. Hot steril water properly applied affords relief in many of these cases, but the manner of application is very essential to accomplish the desired result. My method is to use an irrigator or fountain syringe, the end of the tube mounted with a small nozzle. The reservoir is elevated from a foot to a foot and one-half above the patient's ear. This allows of a gentle flow of the stream, the force of which is not sufficient to cause any discomfort to the patient. His head is held over a basin and the stream is allowed to flow in and out of the ear for not more than two minutes at a time and repeated at twenty minutes to one-half hour intervals. If the irrigation is continued for a longer time the effect of the treatment is diminished and the patient will complain of dizziness and discomfort.

In the intervals between the douching process a few drops of warm solution of atropine sulphate, gr. III; cocaine hydrochlorate, g. XX; acid carbolic, gtt. V; glycerin, oz. I, are instilled into the external canal while the patient is lying on the opposite side. This is the only preparation which I use. It can only be used when the drum membrane is imperforate, as a punctured drum will allow it to pass into the middle ear where absorption will take place and alarming symptoms may develop. The use of atropine or cocaine in an aqueous solution has practically no action on the inflamed drum, but in a vehicle of glycerine these drugs are more active.

The pernicious habit of dropping laudanum and sweet oil into the ear cannot be too severely condemned. The sweet oil offers an ideal medium for the propagation of the various forms of the aspergillus fungi, and when they once gain an entrance into the middle ear their ability to destroy the hearing is too well known.

For external application over the affected organ, heat is preferable to all others, the temperature of which can be increased to tolerance. The use of the artificial leech applied to the region anterior to the tragus may aid in the abstraction of some of the blood from the congested region, but the benefit derived is very slight if any. The patient should be put to bed and kept quiet. Opiates to relieve the pain should only be used as a last resort and can be dispensed with in almost every case if seen early. As the action of the opiate is to mask the important symptoms and lull the physicians into a feeling of false security which may result disastrously to his patient.

A thorough cleansing of the alimentary tract is very essential in these cases and is best ac-

complished by the old method of divided doses of calomel, followed by a saline purge. Food should be withheld for a few hours. Hot drinks are given at frequent intervals and as a constitutional remedy aconite in small doses may be repeated until several doses are given.

The question of the removal of adenoids during an acute attack of otitis media, for the purpose of establishing a freer drainage into the pharynx through the eustachian tube, has been discussed at some length and the difference of opinion demonstrates the fact that the results are not what has been claimed for the procedure. I do not believe it a good practice as the congestion resulting from the curetting of the pharyngeal walls can only increase the congestion and obstruction already present about the region of the tube.

In closing let me reiterate that much may be accomplished by the proper medical treatment of this condition, providing the patient is seen early enough in the course of the disease. And while the object is to maintain the hearing apparatus in its integrity and to prevent if possible any route of entrance for the admission of pathogenic germs into the middle ear, the danger of too conservative a plan of treatment must always be borne in mind, and when the conditions do not react to the remedies applied within a short space of time, delay is dangerous and operative interference imperative.

THE INDICATION AND TECHNIQUE FOR INCISING THE DRUMHEAD IN ACUTE OTITIS MEDIA.

O. B. MONOSMITH
Lorain, O.

[Read at the Cedar Point meeting of the Ohio State Medical Association, August, 1907.]

The scope of this paper must necessarily be limited to acute otitis media. What, then, are the indications that will justify a paracentesis of the tympanic membrane? Paracentesis to be used in the sense that drainage be made sufficient. A brief resumé of the pathology of the disease may help to answer this much discussed question.

Acute otitis media is an inflammation of the lining membrane of the middle ear cavities, caused by the presence of pathogenic bacteria, which may gain entrance through the eustachian tube, external meatus, circulation or the fissura petro-squamosa. Of the four the eustachian tube is of the greatest importance.

A large variety of bacteria have been found. Clinically they cannot be differentiated; there-

fore no attempt has been made to base a nomenclature on the bacteriological findings.

The lining membrane becomes infiltrated and thickened to sometimes as much as forty times the normal. It is scarcely necessary to point out the clinical importance of this fact.

The blood vessels undergo the usual inflammatory changes and pour out serum and leucocytes into the middle ear.

The lining of the middle ear cavities has considerable absorptive power, but when the exudate and bacteria are in excess of the absorptive power the organ of hearing and its surroundings are in danger. The exudate exerts pressure in all directions, pain develops, and we have presented the clinical symptoms of acute otitis media.

The clinical manifestations depend upon the virulence of the infection and the resistance of the particular host.

In the picture of acute otitis media, therefore, we are confronted with an inflammation of varying grades of intensity, from the very mildest to the most severe, menacing the integrity of the entire organism. In practice, acute otitis media has been divided into acute otitis media simplex and acute suppurative otitis media.

The lining membrane of the middle ear cavities from the isthmus of the eustachian tube outward contains no mucous glands. The term catarrhal otitis is therefore, as pointed out by Bezold, misleading and perhaps inappropriate.

The term earache, from a pathological anatomic view, is no more comprehensive than the term fever, for it may be caused by different diseases and conditions of the ear itself; also by different diseases and conditions remote from the ear.

We therefore look upon earache as a symptom that calls for an intelligent investigation. Earache occurring in the course of an acute otitis media is considered evidence of increased pressure. A bulging drumhead, together with fever and deep seated pain, that does not respond promptly to treatment, are the indications that in the majority of instances call for operative interference.

There are exceptions when it is not necessary for this triad to be present in marked degree—for instance, in children when symptoms of meningitis develop or when facial paralysis is present, or when there is extreme tenderness over the mastoid antrum.

It is the writer's opinion that in those cases where the resistance of the general organism is very much reduced by some general disease, such as typhoid or pneumonia, of which the otitis is a complication, that prompt drainage should be

established. In this class of cases I have noticed that marked loss of hearing is often the most prominent symptom and may precede the pressure symptoms by a number of days. It is also in this class of cases that I have observed the most serious complications when if for any reason prompt treatment was neglected or denied.

Another phase of this subject is the very frequent occurrence of the so-called simple earache in otherwise healthy children.

The general practitioner is consulted oftener than the specialist in this form of otitis.

If you examine the ear during one of these attacks you will probably find the drum membrane red and bulging. You also know from experience that most of them recover within twenty-four to forty-eight hours with very simple treatment. Now, will you advise incision in such a case, knowing that a suppuration will probably follow and continue for at least two weeks.

This consideration led Piffi to advise in all cases of acute otitis media to wait one or two days before the drum is incised. Those cases that get along without incision recover with better hearing. But here is the point: The patient wants relief and wants it quick, regardless of what comes later. You are therefore sometimes forced to the expedient of early incision in nervous and intractable patients, while with a tractable patient you are conservative and thereby gain in the end.

No ironclad rules can be formulated. Every one has to think for himself, and because you can think is one of the reasons for your being doctors.

Although incision of the drumhead in acute otitis media is often of very great service, it is not the very best field for the operation.

Bezold found in a statistical study of the cases that came under his observation between 1880 and 1901 that incision of the drumhead was performed in 4.4 per cent. of the cases of acute otitis media simplex and in 27.1 per cent. of the cases of acute suppurative otitis media. Although Bezold is rather in favor of early incision, it can be seen that only a very small per cent. of the cases of simple otitis required operation, less than 5 per cent.

The technique for incising the drumhead is rather simple. It may be performed with or without anesthesia, general or local.

My experience with local anesthesia has been limited, at the same time unsatisfactory.

When one ear is opened, one of the quick general anesthetics will be found useful. Often, however, it does not give time for the proper post-operative cleansing. It has been the writer's

practice to give chloroform or ether whenever it is possible.

The instruments used are an ear speculum, head mirror and a knife, of which there are several—the lance shape knife, the guarded sickle knife and the paddle knife.

The external meatus is first scrubbed with an alcoholic solution of bichloride (1-3000), with a cotton wound applicator, until the whole canal is thoroughly cleansed of cerumen and exfoliating epithelium. It is then irrigated with warm sterile boric solution. In a large number of cases the landmarks of the drumhead are effaced; often it is impossible to make out the posterior boundary of the membrane, especially where there is a sharp turn in the canal and the posterior part of the drumhead touches the anterior wall. One should not mistake a hemorrhagic or serous blister for the tympanic membrane. Where the landmarks can be made out it is the rule to begin the incision directly below the umbo and continue it upward, outward and backward to the desired extent.

Where the mastoid is very tender, it is perhaps wise to continue the incision to the upper rear wall and incise the integument down to the bone, the so-called internal Wilde incision.

Where all the landmarks are effaced, we must depend upon our knowledge of the topography of the middle ear structures and make the incision as near as possible in the most bulging part.

With regard to the dangers of the operation, it must not be forgotten that the bulb of the jugular vein sometimes lies bare at the floor of the tympanic cavity or even protrudes into it. A number of injuries to it have been reported in literature, one of which terminated fatally as a result of pyemia. The carotid artery also may be found lying bare on the anterior wall of the tympanic cavity in exceptional cases.

Knowing of the very remote danger of injuring the carotid in this slight operation, I demonstrated with the few specimens that I could procure that a straight knife entering the drumhead on or anterior to a line drawn vertically through the umbo will, if carried through, impinge upon the anterior wall of the tympanic cavity over the carotid canal.

While I believe the danger of injuring the carotid and jugular have recently been very much exaggerated and that we should think of it as a remote danger, there are other dangers that should be avoided if possible in every incision of the drumhead.

With the lance or the sickle knife it's very easy to injure the incudo-stapedial joint, the

crura of the stapes or the tendon of the stapedius muscle. It was this fact that led me to adopt the paddle knife. With it great skill and refinement of touch are not necessary. As soon as the belly of the knife touches the drumhead it can be seen by a slight dimpling of the surface. The incision can then be made by drawing the knife the same as incising the skin with the belly of a scalpel.

In conclusion I wish to merely touch upon the after treatment. If we have done no good by the operation, we have certainly done harm, for we have opened a new avenue for secondary infection. It should therefore be carefully guarded.

Immediately following the incision an attempt should be made to evacuate the exudate. There are several methods of doing this—Politzerization, eustachian catheter, Seigle's otoscope. The latter in the writer's hands has been most satisfactory. Performing external inflation usually, occasionally suction is better, or the two may be combined. The canal should be thoroughly dried with cotton tips, boric powder insufflated and a large pad of cotton applied to the ear, thus concluding the technique of the first dressing.

DISCUSSION.

S. H. Large, Cleveland: I wish to agree with Dr. Ingersoll when he says that prophylaxis is the great thing. Dr. Jameson brought up some good points about the nasal douche and about blowing the nose. I advise patients to open the mouth when blowing the nose. I would like to ask Dr. Jameson if he has had cases where adrenalin 1-2000 has irritated. I have found some cases where it is irritating.

Dr. Murphy gave the title of his paper as acute catarrhal otitis media. I cannot agree with his description of it, as in that trouble you do not have much pain, no inflammation and no elevation of temperature, and I think the paper should have read "Acute Otitis Media." I think in douching the nose the post-nasal method is the best and safest if you use watery solutions. The doctor said he never inflated in these cases because there is danger of rupturing the drum. The Politzer method does not rupture the drum. It acts as a vacuum and not as a force. Dr. Luckens uses carbolic acid and glycerine, but uses 1 in 80. I do not think that is strong enough. I use 1 in 5 or 1 in 10. Dr. Thrasher said he uses ether or nitrous oxide. We have been using ethyl chloride, and it is very satisfactory. Dr. Thrasher also said he likes heat because it favors suppuration. I would like him to explain that. The rest of Dr. Thrasher's paper wanders from the subject. I understood it was to be limited to earache. I like Dr. Monosmith's knife.

I think he has the right idea about the paddle knife, and also about Siegel's otoscope. I think the latter is splendid in acute otitis media after paracentesis.

C. L. Minor, Springfield: There are several points in the papers presented that should be emphasized. One is in instructing patients how to blow the nose. *Always blow gently*, and especially after using the nasal douche. I explain to my patients the importance of first blowing with both nostrils open, and inform them of the very frequent occurrence of acute otitis from blowing a drop of water through the eustachian tube when this important step is neglected.

Another point to emphasize is the pernicious habit that so many physicians have of advising patients to use sweet oil and laudanum to drop in the ear for relief of pain. I am well aware that it is a threadbare story, but when case after case comes to your office that has had such advice given them I think that we should still hammer away and perhaps some time in the dim and distant future the habit will not be so prevalent.

In the use of hot water for the relief of pain I am in the habit of using much more water and much more frequently than has been advised by any of the essayists. I have my patients use a two-quart fountain syringe, filling the bag with water as hot as can be tolerated, at least at a temperature of 105°. The bag is hung on a level with the ear and the stream of water directed toward the wall of the canal so that the water does not strike the drum direct, as this would increase your symptom rather than relieve it. The douching of the ear can be repeated as often as every fifteen minutes, but usually once an hour is sufficient. I continue its use until the symptom has disappeared or until more active interference is indicated. Since the family physician is the first one to see these cases, I think we are safe in advising him to use the hot douche for the relief of pain as above indicated, and if the patient is not very much improved in twenty-four hours he should refer to a specialist.

In the treatment of acute inflammations in the ear I think all patients should be put to bed on restricted diet and given a saline purge as a routine. For paracentesis I use a Graefe cataract knife in preference to any on the market designed for that purpose.

C. P. Linhart, Columbus: There is one thing that I think was not mentioned as a palliative in some of the simpler forms of middle ear trouble where there is a little congestion with some pain. For this condition I recommend my patients to take a pipe and fill it half full of tobacco, light it and then put the bowl of the pipe in the mouth and blow the smoke through the stem of the pipe into the external canal. Often in children there is a chance of its not going farther than a simple catarrhal inflammation. The ear drum could be compared to a snare drum. The eustachian tube acts as a vent, the same as the little hole in the side of a snare drum does. More than this, it is a drainage canal for the middle ear. That part of the essay which speaks of opening the eustachian tube is important. It seems to me that it ought to be looked after among the first things we do in the treatment of inflammation of the middle ear where we see the case before the infection has extended to the deeper portions. If free drainage is established while the inflammation is catarrhal in character, the mucous membrane has a better chance to re-

sume its normal condition and inhibit the production of pyogenic bacteria. As to the method, I think each one must follow that which gives him the best results. I like the catheter, and have no complaint from the patients if the eustachian orifice is properly cleansed and cocaineized before the introduction of the instrument.

In cutting the drum membrane I would agree that it should be done under an anesthetic. In that way you can see what you are doing and take your time; but if it is done without an anesthetic I prefer to make the incision from front to back instead of from back to front, wherever there is greatest bulging.

The drum membrane slants forward and inward. When an incision is made from front to back, if the patient shrinks away you make a good cut; whereas, if it is made from back to front, the patient will get away and you will have made only a simple stab in the membrane.

I was pleased to hear about the carbolic acid and glycerine solution. That is a splendid combination and will under certain conditions accomplish good results. The boric acid powder I believe is not a good application to any raw surface. I formerly used it and other powders a great deal, insufflating them into the external canal and into the middle ear, if there was a perforation. I do not use them at all now. I had a little experience with boric acid once that taught me a lesson. In playing tennis I fell and skinned my knee badly. I washed the abrasion and applied boric acid powder, which hardened and formed a coating over the wound and kept the pus from draining away. A local sepsis developed, and I had an inflammation of the lymphatics clear up to the inguinal glands. I could not think what the cause of it was, as I was in good physical condition. A little later it hurt me so much that I washed it off, and four or five hours afterward my knee felt better, and the swelling of the glands went down. But I thought I should have some dressing on it, and so I applied another kind of antiseptic powder, and then finally, as an experiment, I tried boric acid again, and each time I had the same bad result. In talking with some other surgeons I found that they had experienced similar trouble with dusting powders on a raw surface.

Thomas Hubbard, Toledo: The title of this symposium emphasizes pain as an important feature for consideration, but I think that simple acute infections without pain are the most puzzling and liable to develop insidiously to a serious degree of purulent inflammation of the middle ear. These very cases are the most difficult to manage. In cases with pain as a prominent symptom we know what to do and are usually forced to do it timely. The exact condition of the painless type can be detected only by the most careful study of the fundus, as the subjective symptoms are absent or misleading.

I would not like to say that much of the treatment that has been recommended seems meddling, but let us take a composite of the radical procedures that have been advocated for simple acute otitis media and such a criticism would seem justified. To begin with, we have been advised to cleanse most vigorously the nose and naso-pharynx, even to the extent of supplement-

ing the spray by the swab every two or three hours. Now, we must remember that a large proportion of our cases are children, and I think that such treatment would be harmful or practically impossible to apply. We have further been advised to use Politzer inflation during the acute stage, which, in my judgment, is deleterious.

Another goes so far as to advocate the use of the catheter during the acute stage, and this certainly is meddling. And the ear is assaulted also from the external auditory canal and solutions prescribed to be used which, in the absence of wax or secretions, are almost corrosive in action. For instance, the high percentage of carbolic acid advised, and, further, irrigation on the very generous plan of two quarts of hot water, repeated at frequent intervals. The same therapeutic effect can be obtained and with far less local irritation by the use of irrigation in moderation, supplemented by prolonged application of moist heat externally.

And paracentesis, or, rather, myringotomy, has been advised without mention of contra-indications. Pain is an indication, but not unless there be local evidence of retained inflammatory products. The pain may be a simple neuritis incident to the acute infection. And it is a surgical error to do a complete myringotomy to open a blister or superficial serous bleb, such as not rarely appear in mild infections.

We are certainly getting away from rational methods. We are treating a simple affection that will, properly managed, run its course in a very brief time, and I feel like protesting against the statement of a speaker that if improvement does not follow in a day or two after antrum invasion we should resort to the mastoid operation. Antrum invasion is often coincident with or immediately consequent upon tympanic infection.

The essentials are absolute rest and the best of hygienic conditions; eliminative medication, anodynes in moderation; careful cleansing of nares and naso-pharynx by alkaline detergent solution by means of atomizer, or, in very young, by the medicine dropper; local treatment adapted to the delicate organ involved to subdue inflammation, relieve congestion and allay pain—in other words, moist heat, and the timely free incision of the drum membrane, not as a routine practice, but only when there is an indication, with diligent care to subdue the primary and prevent secondary infection by cleanliness and the local use of antiseptic solutions.

E. L. Mather, Akron: The same principles would and do apply to the surgery of the ear as to any other part of the body. It is to establish drainage. If it is a simple congestion, no pus formation, no incision of the drumhead is necessary. To the carbolic acid and glycerine solution I frequently add some cocaine and alcohol, which I find very beneficial in relieving the pain. If there is bulging of the drumhead and it is highly congested, it is time to do a paracentesis. The question of the anesthetic depends on who the patient is. If he is a doctor, you will have to use a general anesthetic. Otherwise you may get along with a local anesthetic.

In regard to instructions as to blowing the nose, I would like to know how anybody can blow the nose with the mouth open. The oro-

pharynx must be closed by closing the mouth or pressing the tongue up against the soft palate, so that the current of air is directed into the choanæ and through the nose.

As to the kind of knife to be used, I think the doctor is quite right. I have had a Graefe knife made smaller than the usual knife, the cutting edge about one-third inch and the shank two inches long. The handle is square, so there is no danger of its turning in the hand.

J. E. Cogan, Cleveland: If you use boracic acid and alcohol it is a common thing after a little time to see that the boracic acid is precipitated, and you will have closure. Now, that is not a very good thing. I have been using a solution of formalin 1-1500. First get the canal cleared out carefully; then fill the whole ear up and have the person lie on the opposite side and allow the drainage to gradually trickle in. I think the formalin is a particularly good thing. It will go over into the attic from the fact that it is volatile.

Royce D. Fry, Cleveland: There are a few points on which I would like to give my experience. One is the causes of pain. In a very few cases I have found a rhinorrhea accompanied by an otorrhea, in which, so far as any physical signs were concerned, we could not discover redness, which is a usual accompanying sign of inflammatory action. We had bulging of the ear drum caused by a pouring out of serum, the same as in rhinorrhea, which seemed to be accounted for by a relaxation of the vessels, and certainly in cases of this kind—and I think in some others—the time for opening on the bulging tympanum would certainly not be “twenty-four or forty-eight hours,” but in three or six hours after the onset of the trouble, as I have seen marked bulging of the membrane with intense pain inside of this time after the onset, and, as I say, without all the accompanying symptoms of an inflammatory condition, which would probably not come under the head of inflammation of the middle ear because not accompanied by all the symptoms. As soon as paracentesis was performed the trouble subsided in most cases. I have had one case where I had to perform paracentesis three times in as many days, which was accompanied by an otorrhea without redness or congestion so far as I could discover.

Another point I want to call attention to in the treatment of acute otitis media not mentioned here. Where we have a very markedly inflamed drum membrane, I have found very excellent results from the application of adrenalin chloride, 1 to 1000, against the drum and allowing it to remain for ten or fifteen minutes. It bleaches out the M. T. and gives results which you cannot get in any other way. Another thing I have used, which has been criticised by one of the gentlemen in the discussion, and that is the inflation of the ear through the catheter with adrenalin inhalant. We certainly get a depleting action upon the ear drum before we have a necessity for paracentesis by the adrenalin inhalant, and if the pharynx is properly cleansed no harm will result. We ought to take thirty minutes if necessary to have it as nearly aseptic as possible. I think infection of the middle ear comes from lack of thorough clean-

liness, and it is my rule to cleanse the pharynx thoroughly, wiping out the mouth of the tube and use all the time necessary. I think it is a very dangerous practice to inflate the ear with pus in the pharynx, and if more care was used we would have less objection to the use of inflation, and with adrenalin inhalant used cautiously and with the greatest amount of care so as not to cause any bulging, with slight puffs, so that they can hardly be heard, you certainly get an effect upon the eustachian tube which you cannot get by an application to the naso-pharynx.

Another cause of acute otitis media which has not been mentioned, of which I have had two cases in the last ten years, is a necrosis of the canal at the junction of the membrana tympanum with the inferior border of the canal, and this was not accompanied by any mastoid disturbance, without bulging, without disturbance of the middle ear except the redness of the membrana tympanum. I would like to mention a method of treatment that I think is certainly not very common but very efficient. I have never seen mention made of it. It is the application of the acid nitrate of mercury to the necrotic portion of bone which did not heal under any other method. Necrosis of bone in many parts of the body can be thoroughly eradicated by the application of a proper solution of the acid nitrate of mercury, which causes separation of the tissues which are in a condition of microbiosis. The application I have used in these and other cases is a five per cent. solution. In the ear it should be applied on the tip of a probe; it is very important not to apply it any place except the necrotic bone. It is attended by some pain, which cannot be avoided, no matter where applied. But it is an excellent application to any bone necrosis, and will give satisfactory results where other things fail.

Dr. Sampson: When operative interference is necessary upon the drum membrane I think anesthesia is most important to the physician and patient, but I am prone to think that general anesthesia is not very often indicated. My plan is to use Grays solution, 10 grs. cocaine, 40 m aniline oil and 50 m of absolute alcohol. The penetrating power of the aniline oil carries the cocaine through the membrane so that an incision can be made through any membrane without pain. I have never yet seen it fail. Allow the cocaine to dissolve in the alcohol first.

In regard to the incision I think the knife best adapted in these cases is one in the shape of a bistoury with a hook. If the bistoury-shaped knife is used it has a curve as you know, and after the point penetrates the membrane and the patient pulls, you do not fail to accomplish your purpose. By making the incision downward and backward you allow of free drainage in all cases, if the point of protrusion is at that point, I mean. If it is high up in the attic it is not indicated. But the matter of anesthesia, to my mind, was overdone by some of the speakers—that is, in advocating general anesthesia in each and every case. I believe it would be almost an impossibility to subject my patients to general anesthesia, and absolutely unnecessary.

In regard to boric acid in these cases, I have long since discarded the use of it. I find that it packs, and if we have a small opening in the

membrane, a perforation accomplished by nature, we will in a short time fill that opening and it is necessary to enlarge it. As to the irritating properties of boric acid, I cannot say there is anything in that other than the idiosyncrasy that might exist in the patient. My plan is to treat these cases by the dry method, using sterile cotton, mop out the ex. canal thoroughly and then pack it with sterile gauze, usually in the first few days using absolutely no medication other than sterile methods.

Inflation is an important matter, and I must say if the physician is called early and uses Politzer's method we would not have many cases. The general physician is not enthused much in this respect, and a Politzer bag should be a part of the armamentarium of the general practitioner and inflate the ear when the youngster has earache.

In regard to the possibility of this disease resulting in mastoiditis in two days, that is out of the question. I think operative interference on the mastoid is not likely to be indicated for probably ten days or two weeks, or possibly longer than that. I remember a case I operated on two years ago where there had never been any discharge from the middle ear and no interference whatever in the middle ear that I could find. Yet there were symptoms of mastoiditis and on operation the patient was relieved and secured freedom from pain, and eliminated a large quantity of pus from the mastoid antrum.

H. A. Hart, Wooster: I simply want to touch upon one point to which Dr. Fry has referred, and that is the particular attention that should be paid to perfect cleanliness of the posterior nares and pharynx. In quite a long experience as a specialist I have seen grave trouble from the indiscriminate use of the catheter and the Politzer bag in these cases. We have a secretion of tough, adhesive mucus in the throat and eustachian tube in many of these cases, and if you use the Politzer bag or the catheter without first cleansing the posterior nares and pharynx, the possibility is that you are going to force a plug of this mucus into the eustachian canal, and you will have occlusion of the canal and will aggravate all the symptoms. I have seen that in a number of cases, and it has been a practice with me not only to cleanse the posterior nares and pharynx, but then to have the patient close the mouth, pinch the nostrils tight shut and inspire forcibly. You will be surprised to see the mucus they are able to hock out of their throats. That will apply to adults. In children I have had the mother take the child across her knees, take its head between my knees, and after it lets out a long howl, as it will do, pinch the nose and mouth shut, the next act is a long inspiration, and the slobber that comes out of its mouth when released is surprising. I just wanted to emphasize the matter Dr. Fry referred to of giving more attention to this matter of cleanliness.

J. M. Ingersoll, Cleveland: There seems to be considerable difference of opinion in regard to inflation of the middle ear during acute otitis media. The mucous membrane in the nose and nasopharynx and eustachian tube is inflamed and it seems to me that it is impossible to cleanse this inflamed mucous membrane sufficiently to prevent the possibility of carrying an added infec-

tion into the eustachian tube and middle ear by inflation, whether Politzer's method or the eustachian catheter is used. Cleansing the mucous membranes decreases, but does not eliminate the chances of infection.

Wade Thrasher spoke of making the incision through the drum membrane and continuing the incision in the cartilaginous part of the canal. I think that this was a typographical error, as the cartilaginous part of the canal is separated from the drum membrane by the bony canal. I suppose that he meant to say, "Make an incision in the drum membrane and also in the cartilaginous canal."

R. D. Gibson, Youngstown: I believe we are going into the surgical end of this subject when the practical end of it is the early treatment. When first called to treat an earache, it has been my practice for some years to give a free cathartic, a decidedly free cathartic. Most frequently I begin with a teaspoonful of Rochelle salts in a small portion of water and repeat it every hour until the bowels have moved freely the second time. Then we are pretty sure we are going to have sufficient depletion of the general system to do some good. In addition to this and according to the indications of the case, and the age of the patient, apply from one to six leeches to the back of the ear, over the mastoid region. Then, after the leeches have fallen off, encourage the flow of blood from two to three hours as desired, by warm sponging. Cleanse the nose and throat, keep the patient in bed, on a restricted diet, and suppuration will be prevented in 90% of the cases. I prefer dry heat. An electric lamp with a reflector held at a proper distance gives great comfort. The hot-water bottle is always available and useful. This is the treatment the general practitioner will have to apply. When it comes into the field of the specialist, then let us do that which the demands of the case require for the time being.

John North, Toledo: I did not intend to say anything, but it seems the gray hairs are opposed to too meddlesome work in the ear. I agree with them. I think the eustachian catheter, the inflation by Politzer's method and the nasal douche have been the cause of the specialist having a great deal of work to do. I do not believe they should be used. I cannot see any necessity for them. Where there is great pain in the ear, before any pus has formed, we have nothing that will do as much good as hot water applied to the ear. Let it run in very slowly, as hot as the patient can stand it, keeping it up one to three hours. At first the pain may be increased by the dilatation of the blood vessels, but the secondary effect is to contract the blood vessels in the membrane and all the parts around it and give relief from the pain. The majority of cases require nothing else; if there is any return of the pain I use the hot water again. It is not always necessary. When there is bulging of the membrane and pus forms, then open. There is not every case of pain in the ear in which you have bulging of the drum or suppuration. I recently had a case of very severe pain in the ear which I couldn't locate, and very conveniently I left the city and turned it over to Dr. Lukens and he can tell you what was the matter with it. There was

no bulging of the membrane, but very severe pain.

As to the use of adrenalin, I give adnephrin in preference. The effect is the same, but it is not so irritating and will keep longer. It does not decompose so readily. When suppuration takes place and there is spontaneous rupture, or operation is performed, I use alphozone, one grain to the ounce of water. It is the best germ killer I know of. I get excellent results with it.

R. D. Gibson, Youngstown: I would like to know what the difference is between that and adrenalin?

Dr. North: I don't know that there is any particular difference, but it does not seem so irritating. Whether there is something in it that makes adrenalin more irritating I do not know. It deteriorates more rapidly. Adnephrin is supposed to be the same thing, but it is manufactured differently.

Members: One is made by Stearns and the other by Parke-Davis.

Dr. North: I am not in the pay of Stearns at all, but simply use it. I prefer the Parke-Davis preparations usually.

George C. Jameson, Oberlin: Dr. Large refers to irritation from the use of adrenalin in the naso-pharynx. Where this occurs I think it is due to decomposition of the adrenalin. With a fresh solution I have never seen such irritation. I think adnephrin is perhaps more stable than adrenalin, and has practically the same effect.

The administration of opium in earache is not to be encouraged. Our aim should be to relieve the pain by removing its cause, rather than by deadening the nerves.

Dr. Minor says that in otitis media of infants the hand is always thrown up to the ear, thus indicating the location of the pain. In many cases this has not been my experience. The child will often give all the appearances of suffering from a severe colic, and may not put the hand up to the ear at all. Many cases are thus diagnosed as gastro-intestinal disturbance, when the real trouble is in the middle ear.

The intimate association of gastro-intestinal disease and inflammation of the middle ear is important and should be emphasized. Wherever gastro-enteritis is prolonged and intractable the ear should always be examined.

Dr. Hubbard's suggestion that many cases of otitis media are not manifested by pain is very pertinent. Often a bulging membrane will be found, and pus evacuated by an incision, when the patient gives a history of little or no pain in the ear.

Reference has been made to the application of adrenalin to the outside of the drum membrane. This will doubtless bleach out the membrane and make it look less inflamed, but I cannot think the real inflammation in the middle ear will be much influenced by such an application.

Walter E. Murphy, Cincinnati: One gentleman in his discussion has made the statement, if I understood him properly, that it is not the inflation of the middle ear that will cause rupture of the drum. One reason of my mentioning that fact in the paper today was two cases which I saw during the past winter. One was an adult male

and the other a girl about twelve years old. In both cases the membrane had been ruptured by inflating the ear. Of course we realize the amount of air that must be forced into the ear to cause a rupture. But the history of these cases was that the ear had been treated for earache and the doctor had inflated the ears by the Politzer method. At the time of the inflation they experienced acute pain and soon after they left his office blood was noticed running from the ear. On examination I found a tear in the drum membrane, and there was no pus present, and in both of these cases I was able to prevent any infection through the ruptured drum.

I think we will all agree that to use carbolic acid and glycerine solutions in the external canal is only a temporary relief, and not of any permanent value. And as to the time limit of medical treatment, I have made the time short because I find too often these cases are allowed to run on to such an extent that when the general practitioner turns them over to the specialist there is nothing left for him to do but to make a paracentesis.

Charles Lukens, Toledo: Evidently some one misunderstood me as to the strength of the carbolyzed glycerine solution. I mentioned it as 10% or 12%. I said 1 to 7 or 9 of glycerine. This is not caustic unless the canal has been denuded of its epithelium. I have used it for years, and have used it in my own babies when they had earache, and the babies have slept, being relieved. It is a good practical help when nothing further than that is required.

Wade Thrasher, Cincinnati: Dr. Large of Cleveland accused me of digression. I am sorry the doctor is not here so that I could ask him whether he has had a case of mastoid inflammation or furunculosis where earache was not a prominent symptom.

Dr. Hubbard evidently misunderstood me as to the time of doing the antral operation. That is probably eight or ten days after the inception of the disease. As we know, the micro-organisms go up through the eustachian tube to the tympanic cavity and through the aditus into the antrum, and it is two or three days after that, that I advise the simple antral operation.

In regard to saying I showed a lack of surgical courage in not completing the operation after exposing the lateral sinus, I said after you have torn the sinus membrane itself, and you have a severe hemorrhage, then I believe it is better part of valor to pack and wait a few days, especially when there is necrosis and pus present.

I have exposed the sinus quite a number of times, but have never waited unless I had severe hemorrhage.

O. B. Monosmith, Lorain. Dr. Linhart objects to the boric acid. My reason for using the boric acid is not to heal the cut in the drumhead, it is to prevent external otitis and eczema. It is probable that none of the powder comes in contact with the cut surfaces.

Dr. Hubbard advises conservatism in purulent inflammation of the middle ear. I do not believe there is any other place in the body where surgical interference is more justifiable than in these cases of acute purulent inflammation of the mid-

dle ear. Conservatism often leads to most disastrous results.

In regard to the cases reported by Dr. Fry, in which he made incision where there was no pain, that is really the very best field for incision of the drumhead. There is a collection of serum ex-vacuo with occlusion of the eustachian tube, and the treatment by incision is most satisfactory. I also wish to add my voice in favor of the carbolic glycerine solution in the proportion of 1 to 8.

Dr. Sampson advises against the use of a general anesthetic. I would like to say with Dr. Hubbard that the doctor would want a general anesthetic if he had his own drumhead incised; furthermore, he would not care to leave the hazard drawing away of the head to complete the incision which is uncertain and unscientific. I, however, wish to agree with him in the statement that we should wait at least eight days before the mastoid operation is thought of in acute inflammation of the middle ear. In regard to hot

applications, I think the philosophy of hot applications is to deplete the middle ear by making a large intermittent application to the side of the head, producing an engorgement of the superficial vessels. I have observed in the use of all adrenal solutions, irritation in certain patients.

J. M. Ingersoll, Cleveland (closing): One word in regard to the nasal douche. When used properly and everything goes well, it does help somewhat, but there is always the danger of infecting the middle ear through accident. A little solution may drop into the larynx and cause spasmodic cough, thus forcing some of the solution or some of the secretion into the eustachian tube and middle ear. This may happen in adults as well as in children.

I have seen several cases of severe suppurative otitis media caused by the use of the nasal douche, one in a physician who knew the danger and used the douche carefully.

MEDICAL ECONOMICS

"The health of the hog came first, but we are next," is an apt statement embodying the fact that the government has spent millions yearly in the protection of plant, and animal health and is now urged by the medical profession to establish a department of health to meet the necessity of mankind.

Dr. Albert Jansen, of Berlin, attending the Chicago meeting, had decided not to operate while in this country on a pleasure trip and refused the appeals of wealthy people to do so. The plea of two poor children was sufficient to break his resolution. He operated successfully. Hearing was restored in both cases. The great aural surgeon made a fine exhibition of professional dignity. The rich could go to him; the poor children could not. He refused fees, but relieved the indigent children without thought of compensation.

The United States Pharmacopeia and National Formulary furnish all of the tonics, digestants, emulsions, anti-pyretics, hypnotics, nerve sedatives, cough mixtures and external applications that are needed in medical practice.

The unethical in pharmacy and medical practice including the proprietaries and commercial pitfalls should be eliminated by drawing a line of demarcation between standard preparations found in the pharmacopeia and formulary and the semi-secret nostrums of the proprietary "drummer."

It is a useless expense to quarantine those who are protected by vaccination. The sick man is the disseminator of smallpox and not the well. The present methods of handling smallpox should be changed in accord with the known behavior of its infection. Vaccination is the only protection. Quarantine is of little value. People as a rule prefer quarantine to vaccination because it affords a luxurious living while it lasts.

Enforce isolation for the infected by observation of sanitary officer. Enforce vaccination for all exposed individuals. Enforce vaccination of all school children, public and parochial, at five year intervals. By this means the German Empire has practically eliminated smallpox, and the same can be done here.

The Bense Bill enacted last winter, gives authority to the State Board of Health to require of cities the purification of sewage and the public water supply. This law has large power for good. Physicians in every city should urge its enforcement if necessary to secure a pure water. The maintenance of miles of typhoid fever instead of streams of pure water is a crime soon to be eliminated in Ohio. The city of Columbus during the summer will put in operation its filtration and softening process in connection with the large storage dam already installed. The shame and the crime of epidemic typhoid fever will cease to belie the fair name of Columbus.

Seven hundred and forty-eight cases of typhoid fever were reported to the Columbus Board of Health for April, 1908. Allowing 10% of deaths and \$10,000 for the economic value of a

human life; allowing \$2.00 a day as earning capacity, for only one-half the afflicted; \$10.00 a week for nursing; \$125.00 for average funeral expense, and \$50.00 for medical service. All very low estimates. The summary follows:

Seventy-five deaths	\$75,000 00
Loss in earnings.....	26,928 00
Funeral expenses	9,375 00
Medical service	37,400 00
Nursing	44,800 00

Primarily the people are to blame. If this were not true, civic authority would be held responsible. People submit to their own destruction through unsanitary conditions.

A house-to-house canvas by a Board of Health four years ago and in April, show that only 50% of the people used boiled water, after constant and prolonged warning. They need water protection as well as fire or police protection.

The drugless cults are uniting their forces to establish a State Medical Standard on a basis of "Non-Medical Healing." The State Medical Standard is expressed only in the medical practice act. To retain this standard, the regulation of medical practice must condition the same things to all applicants and to all practitioners, such an unbroken standard would be an honest expression of uniform virtues in all branches of medical practice, but when practitioners are admitted to practice on limited qualifications and limited license, the State medical standard is lowered to the level of such license and such qualification.

The osteopathic license is limited and based upon limited qualifications. The boss rule of Mr. Foraker made the first successful attack and lowered the standard of State medicine.

Other cults and other classes are asking for State recognition. The opticians and nurses are asking for limited license on a limited qualification. The drugless cults are asking for the same class legislation. The truss fitter, the glass fitter, the food faddists, the rubber, etc., are asking the same recognition on the same rights. Why not? These camp followers are on a parity with the Foraker Osteopaths.

There is no objection to the cults and classes practicing the healing art in any of its branches, providing they qualify as do all other practitioners. The cults and the classes are practicing daily, although under the ban of the law. Aside from the public health defense and the perpetration of fraud, there is no objection to the continuation of this practice. The question is

whether these uneducated practitioners shall be recognized by and licensed to practice on an equality with qualified physicians who have graduated from a college of four years' curriculum and passed a final examination before the State Medical Board.

And more, shall the State lower the standard of medical practice to the level of the limited license and the limited qualification implied by non-medical healing, optometry and the medical qualification of nurses?

The State recognition of these cults and classes which desire to practice some branch of the healing art, not only lowers medical standards for its own use in public service, but degrades professional standards and insults professional men. The objection is not so much to the practice of the cults as to the degradation of medical standards. If the cults and the classes will qualify as do all other practitioners, maintain medical standards and protect the public health, there will be no objection as to the therapeutics employed. Hence, it is proposed that the medical practice act be changed so as to eliminate examinations in materia medica and therapeutics and require all candidates to pass the same examinations in other branches as they do at present.

EATS MEDICINE SAMPLE AND NEARLY LOSES LIFE.

By the eating of three medicine pellets found on the porch of an unoccupied house, where the sample package had been thrown by a distributor, Virgil Burrett, five years old, whose home is at 788 Summit street, had a narrow escape from death yesterday and was only saved by the use of powerful heart stimulants and the washing out of his stomach.

The medicine was in tablet form, and probably was intended for headache. The literature that went with it had been blown away. One pellet would have been sufficient for an adult. The boy is out of danger.—Ohio State Journal.

Another illustration of this pernicious practice of sampling the laity with nostrums. The bill to prohibit it was interred in a committee as far as we may learn, either from lack of interest in the subject on the part of the members thereof, or perhaps because of excess of interest on the part of the quack medicine vendors, to whom a little thing like the death of a child or two would seem but a trifle.

In the meanwhile the reports like the above, which appear from time to time, are helping crystallize public sentiment.

The Ohio State Medical Journal

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THE JUNE EXAMINATION OF THE STATE BOARD.

The examination held last month by the State Board was the most successful ever held in Ohio, so far as arrangements were concerned. The objects of these examinations is to investigate the qualifications of would-be practitioners of medicine; the interest of the public welfare demands a careful testing of the candidates, and one free from any suspicion of disingenousness.

The large majority of graduates, we believe, are thoroughly honest and would not cheat in an examination; a few, however, are not to be trusted, and because of these, and also because a number more are doubtless like the average man who, according to the old colored philosopher, "won't steal what's outen of dere reach," rigid rules and careful watching must be employed. Hitherto the facilities for carrying out these requirements have been lacking, because largely from the holding simultaneously of three or four examina-

tions in various parts of the state, it has been necessary to divide up the Board, which materially affected the efficiency of the inspection. The personal equation of the examiners also came into play; one might be more liberal than another; or one might answer a perfectly legitimate question which another might refuse to do, thus bringing about a certain amount of unfairness in the examination as a whole.

The recent examination referred to took place in the gymnasium of the State University. The entire class of candidates was seated in the main hall, which allowed the 167 graduates to be arranged in rows at intervals of six feet from their neighbors, thus precluding any temptation whatever to communicate, and permitting an unobstructed view of the whole assemblage. The entire Board was present and ready to act upon any question which might arise.

Another feature and one particularly to be commended, was the series of practical tests in urinalysis, chemical and

microscopic, bacteriology, histology and pathology. To one side of the hall were tables where each candidate was given three samples of urine, one normal and another containing albumin, and third sugar; these were variously numbered and each was examined and reported upon a printed blank. Slides containing casts, crystals, pus corpuscles and red blood cells were supplied for the microscopic examinations.

Normal and pathologic sections of tissue were arranged under the microscope for diagnosis, as well as preparations of some of the more common and pathogenic bacteria.

As far as we could see the arrangements and facilities were ideal and the State Board should be congratulated upon its efforts to give both the young graduates and the public "a square deal."

THE MEDICAL MILK COMMISSION.

The medical milk commission is a humane institution born of the county medical Society with an altruistic mission to furnish bottle-fed babies, children and invalids with pure milk. Dr. Henry L. Coit, of Newark, N. Y., in 1892, by the aid of the Essex County Medical Society, gave origin to the Medical Milk Commission. About fifteen commissions have been created in this country. They are affiliated in a national organization with Dr. O. P. Geier, of Cincinnati, secretary. "Certified Milk," a term coined by Dr. Coit, was copyrighted by the Fairfield Dairy Company, the first to make a contract with a medical milk commission.

The movement belongs strictly to the county medical society, i. e., to physicians, through philanthropic societies and business men have been taken into the organization. The association of local health authorities in this work favors the improvement of the general milk supply

and in turn furnishes inspectors and laboratory facilities without expense.

Members of the commission receive no pay. The bacteriologist, chemist and veterinary inspectors receive compensation unless such services come from the health department or gratuitously extended by the citizen.

Certification of milk may only be obtained by observances of the many dairy rules adopted by the commission and willingly enforced by one or more competent dairymen who enter into a contract to furnish the milk under these conditions and up to certain standards.

Ten thousand bacterial count per cubic centimeter is the limit. This guarantees a pure milk which is only secured by the essential factors of cleanliness and coolness.

Two grades of milk had been adopted by some commissions. This only compromises with the ordinary market milk and leads away from the original purpose of the milk commission to secure the best quality of milk possible. The certified milk can be produced only in a limited quantity, but should be ample to supply infant milk depots and hospitals and the general public for infant feeding.

The commission should make its reports directly to the dairyman and the medical society. Such reports refer to the inspections of the dairy farm and cattle and methods of handling milk, together with the general sanitary conditions of stable, feeds, water, yards, milk houses and utensils. The reports include also the work of the chemist and the bacteriologist and the personal inspections by commission members. Chemical and bacteriological examinations are made at least once in two weeks from samples taken from the distributor. The veterinary inspection is made at least once in thirty days, and the tubercular test re-

newed yearly. These reports are made on blanks.

The dairyman is required to make a weekly report as to the communicable disease among the dairy personnel and as to the character of the shipments made.

Certification of the milk by the commission depends upon these reports. The certificates are renewed every month. The bottle caps usually contain a stamp, "Milk Certified by the Medical Milk Commission," and these caps are made the source of revenue to the commission. Properly printed they are sold to the dairymen at an advanced price.

The Medical Milk Commissions have accomplished great good, and the medical profession as well as the laity has awakened to the vast importance of this work. Municipal authority is being educated to the necessity of a better milk supply. The smaller cities are being educated. There is being created a demand for tubercular free and wholesome milk, and legal enactments based upon certified milk have obtained in some states.

Nothing should interfere with the passage of such a bill, but strange things happen in legislative halls. Our own bill for the securing of certified milk was not passed at this last session, hence further education along these lines seems necessary. Now is the time to explain such things to the legislators, and when the next session opens much of the work of the Legislative Committee will be largely done and well done.

J. W. C.

PUBLIC EDUCATION IN MEDICAL MATTERS.

Readers of the JOURNAL may recall that ex-President Cleveland in an address before the New York State Medi-

cal Association recently advised physicians to take the public into their confidence. That this advice is being followed is witnessed by its being made a dominant note in recent medical literature. The address of the president of the A. M. A. and that of the chairman of the section in medicine were almost wholly devoted to matters of this sort.

Warnings come from all sides that we must combat the isms and fads that find their prey in the great and growing class of psychoneurotics, by using rational methods based, not on the old psychology, but the new mental science. One writer happily terms it, "A moral hygiene and orthopedia."

Neurologists generally, are coming to the conclusion that the best and most available form of suggestion is the restoration of associational relations by careful training.

Since this question has so great a moral element, it would seem quite befitting that the two professions, medicine and theology, should co-operate in the work as is being done in what is called the Immanuel treatment. Cabot's warning should be heeded, however, that only trained psychologists should undertake it.

Meanwhile much can be done by way of prophylaxis, by popular lectures and articles by physicians on subjects relating to hygienic right living. A present neglected field of broad opportunity is the large number of summer assemblies or Chatauquas in this state. These are attended by thousands of those who would appreciate and profit by such instruction. It is to be hoped that the Board of Public Instruction of the A. M. A. will push its work along these lines, because great good can be accomplished by "taking the public into our confidence."

R. H. G.

EDITORIAL NOTES

Attention is drawn to the case mentioned in news notes of a conviction in Newark of a "Neuro-magnetic" practitioner, and especially to the very excellent charge to the jury by the trial judge.

Judge Brister, it will be remembered, was the author of a very superior address on "The Duty of the Medical Profession to the Public," delivered before the Licking County Medical Society, and printed in the December number of the JOURNAL.

B. H. Blair, of Lebanon, has recently tendered his resignation to the mayor of that place because of the appointment to the local board of health of an individual who, it is understood, is the principal owner of the "Curry Cancer Cure Company." Dr. Blair recommended three reputable physicians of Lebanon to the mayor, but the latter swayed apparently by political considerations rather than the interest of the public health or respect for the medical profession, appointed a man who is said to be affiliated with an institution, the founder of which Samuel Hopkins Adams called the "Ananias of Quackdom," because he is "one of the most eminent all around liars in quackdom." (Page 77 of the Great American Fraud.) The new appointee is described as "personally respectable," i. e., commercially respectable, which seems to mean nowadays that he meets his business obligations and keeps within the letter of the law, as regarding the seventh commandment. The taking of another's money, however, by representing an ability to cure "the worst cases" of cancer, thus raising false hopes in despairing humanity, seems to us a quality which should constitute a blot on even commercial respectability, and should raise the question of eligibility to public service, especially one so vital to the public welfare as to the board of health.

Governor Harris has reappointed the Lima State Hospital Commission as required by the law enacted at the last session of the legislature. The members are: S. S. Hoskins, Wapakoneta; Martin J. Burke, Marion; M. F. Hussey, Sidney; John E. Russell, Mt. Vernon; F. W. Purmort, Van Wert; George Whitney, Marysville.

This Commission will proceed with the erection of buildings for the new hospital for the insane.

In this Commission there are two physicians. Since representations were made to the govern-

nor, drawing his attention to the propriety of appointing physicians on the boards of various state hospitals, he has shown a decided tendency to inaugurate the policy of appointing as vacancies occur at least one medical member on each board.

There are very few such boards now which have not such representatives of the medical profession, and these will be looked after when vacancies arise.

There are certain boards, however, which should not only have medical representation, but should consist of a majority of qualified physicians in order to carry out the purpose for which the institutions were established.

It is all very well to seek to have the state institutions conducted as economically as possible, but the reduction of per capita expense to the minimum should not be made the dominating idea to the subordination of the proper medical care and treatment of the inmates.

NOTICE TO AUTOMOBILE OWNERS.

The new law licensing automobiles passed by the last legislature went into effect June 10, and although a period of thirty days only is allowed to comply with its requirements, the time will doubtless be extended, as the state office is unable to keep up with the demand for licenses and the official tags may be only secured in limited quantities each day.

The method of procedure to be followed in obtaining a license is for the owner of an automobile to write to the Secretary of State, automobile department, and ask for a blank application for registration, one blank for each car owned. On that blank must be filled in the owner's name and address, the description of the car, style, horse power, motor power (steam, gasoline or electricity), factory number, maker's name and date of application; with these data supplied, the application must be mailed to the Secretary of State, Columbus, Ohio, accompanied by the fee, \$5.00 for steam and gasoline machines, and \$3.00 for electrical.

As soon as possible after receipt of the preceding, a certificate of registration will be mailed to the applicant, which will serve as a license until the tags can be supplied, which will be expressed prepaid.

Up until recent date 2200 tags had been issued, and over 4000 certificates of registration. Inasmuch as only 250 tags a day can be obtained at present, it will take some time to catch up. It will be wise, however, to send in applications

promptly and secure the certificate of registration to avoid any trouble.

The above law only effects those owners who are not required to have municipal license during the current year 1908.

After January, 1909, all owners of automobiles must have a state license and tag, but for the re-

mainder of 1908, all who have local city licenses are exempt.

One more point to be remembered is, that licenses must be taken out yearly; and are dated from time of registration, and not for the calendar year, as is usually the case under the municipal ordinances.

THE ANNUAL MEETING OF THE A. M. A.

The fifty-ninth annual session of the American Medical Association was held in Chicago, June 2 to 5. For the first time since the St. Paul meeting in 1901, the Association met in the center of the country. To this fact, as well as to the greatly increased membership in the last few years is due the large attendance. The registration office opened at 8:30 on Monday morning and it was apparent almost from the start that all previous records of attendance would be broken. In the four days of the session 6447 members were registered. Including those Chicago members who did not register, there were at least 500 in attendance, whose names do not appear on the registration list. The actual attendance would not fall far short of 7000. Adding at least 10,000 guests, exhibitors, etc., makes the actual number of persons in attendance about 17,000. The weather was of that well-nigh perfect brand that Chicago can exhibit at times, being bright and clear, yet pleasantly cool and bracing. The general headquarters and registration offices were located in the First Regiment Armory, at Sixteenth and Michigan avenue, where were also found the sections on stomatology and pathology and physiology, as well as the House of Delegates, Commercial Exhibit, Scientific Exhibit, etc. This building, one of the finest national guard armories in the country, served admirably for convention purposes. The meeting places for the other ten sections were the First and Second Presbyterian Churches, Sinai Temple, the Calumet Club and Grace Church Parish House, all within a few blocks of the general headquarters and the Orchestra Hall in the downtown district, in which the Section on Surgery and Anatomy met. This hall, one of the handsomest auditoriums in the city, seats 2500 and was supposed to be ample for the meetings of this section, yet it was on several occasions inadequate, being crowded to the doors.

The House of Delegates was called to order on Monday morning at 10 o'clock by the president, Dr. Joseph D. Bryant, of New York, who in

his presidential address commended the work of the Council on Pharmacy and Chemistry as well as that done by Dr. McCormack in educating the public. He also recommended that a standing committee be established to elaborate the ethical principles underlying the practice of medicine and that general instruction in ethical medicine be made a part of the undergraduate course. He dwelt particularly on the efforts now being made to restrict animal experimentation and recommended action by the House of Delegates on this subject. Dr. Bryant also called attention to the invitation extended by President Roosevelt to him as president of the American Medical Association, to take part in the conference recently held at Washington on the Conservation of Natural Resources.

The report of the general secretary showed that the membership of the Association on May 1, 1908, was 31,343, a net gain for the past year of 3828. The reports received from state associations regarding the organization of branch associations showed that two states had voted in favor of their establishment, seven had voted against and the remainder had at the time of the publication of the report taken no action. The appointment of a committee to consider uniform provisions for the regulation of county, state and American Medical Association membership was recommended. A communication was presented from the secretary of the American Association for the Advancement of Science, asking that the American Medical Association appoint representatives to the council of that body.

The report of the Board of Trustees included the customary report from the auditing company, showing that the entire business for the fiscal year of 1907 was \$385,030.89; that the total expenditures of the year had amounted to \$556,222.21, leaving a net revenue for the year of \$28,808.68. Detailed statements of all the various accounts of the Association's business were given, showing the items in each case. The report showed that during 1907, 2,815,293 copies of THE JOURNAL had been issued, forming a

weekly average of 52,217, increase of 12½ per cent. over 1906.

The Committee of Medical Legislation reported that the Army Medical Reorganization bill and the Carroll-Lazear Pension bills had become laws during the last session of congress. The importance of uniform and adequate state legislation on the practice of medicine and the preservation of public health was emphasized as well as the necessity of careful study of the problems involved. The committee recommended that pending the completion of the work now being done only those changes in existing laws which are imperatively needed should be attempted by state associations. The formulation of the Vital Statistics bill endorsed by the United States Census Department, the American Public Health Association, the Conference on Uniform State Laws of the American Bar Association and the American Statistical Association, was reported and the endorsement of the House of Delegates was asked for this measure. The report of the Chicago Conference on Medical Legislation was also given.

The Council on Medical Education reported that the work of the council during the past year had been along the following lines:

1. The inspection and classification of medical colleges as (a) acceptable, (b) doubtful and (c) unsatisfactory.

2. The conducting of an annual conference with representatives of state examining boards and leading educators for the discussion of the important problems of medical education and medical licensure.

3. The collection and compilation of data regarding (a) medical college students and graduates and (b) regarding results of state license examinations.

4. A thorough investigation of preliminary and medical education in Europe.

5. Working for the advancement of the requirement of preliminary education in the United States to include a year's work in physics, chemistry, biology and modern languages.

6. Obtaining accurate information regarding high schools and universities in their relation to medical education.

The Board of Public Instruction reported that it had secured a secretary, Dr. R. Max Goepf, of Philadelphia, and that it was considering the establishment of lecture system and of state boards of public instruction and intended to publish articles in the magazines and public press for the enlightenment of the public on disease.

The Committee on Ophthalmia Neonatorum advised the enactment of laws in each state regarding the registration of births and placing the control of midwives in the hands of the boards of health; that health boards distribute circulars to midwives and mothers on the dangers and prophylaxis of this disease; that state and local boards of health prepare and distribute proper prophylactic solutions, with specific directions for their use; that proper records be maintained in all hospitals in which children are born; that periodic reports be made by all physicians to boards of health; that concerted effort be made along the lines of public education throughout the country. This report was approved by the chairmen of the Sections on Ophthalmology, Obstetrics and Diseases of Women and Hygiene and Sanitary Science.

The Committee on Scientific Research recommended the appropriation of \$200 for the assistance of each of the following:

Drs. D. J. McCarthy and M. K. Myers, Philadelphia—"An Experimental Study of Cerebral Thrombosis."

Dr. Karl Voegtlin, Baltimore—"Chemistry of the Parathyroid Glands."

Dr. Isabel Herb, Chicago—"A Study of the Etiology of Mumps."

Drs. R. M. Pearce, Albany, N. Y., H. C. Jackson and A. W. Elting—"A study of Elimination of Inorganic Salts in a Case of Chronic Universal Edema of Unknown Etiology with Apparent Recovery."

Dr. H. T. Ricketts, Chicago—"An Investigation of the Identity of the Rocky Mountain Fever of Idaho With That Found in Western Montana."

On Tuesday afternoon, at the third meeting of the House, the reports of the Reference Committees were taken up, the Reference Committee on Medical Education approving the work of the Council on Medical Education and recommending that it be continued. The Reference Committee on Reports of Officers recommended the appointment of a committee of five to consider the elaboration of the principles of ethics. Resolutions condemning the legislative efforts to restrict animal experimentation were presented. The action of the Board of Trustees in preparing the second edition of the directory was approved. The Reference Committee on Legislation and Political Action recommended the approval of the model law for vital statistics, which recommendation was adopted. The resolution presented by Dr. A. T. McCormack, of Kentucky, requesting all state associations publishing or controlling

medical journals to restrict advertisements to such preparations as were approved by the Council on Pharmacy and Chemistry was adopted. A committee of three to confer with a like committee from the American Pharmaceutical Association in regard to drug reforms was authorized. The candidacy of Dr. C. A. L. Reed, of Cincinnati, for the United States Senate was endorsed.

On Thursday afternoon the annual election took place with the following results:

President—Dr. William C. Gorgas, Ancon, Panama.

First Vice-President—Dr. Thomas Jefferson Murray, Butte, Mont.

Second Vice-President—Dr. John A. Hatchett, El Reno, Okla.

Third Vice-President—Dr. Thomas A. Woodruff, Chicago, Ill.

Fourth Vice-President—Dr. E. N. Hall, Woodburn, Ky.

General Secretary—Dr. George H. Simmons, Chicago, Ill., re-elected.

Treasurer—Dr. Frank Billings, Chicago, Ill., re-elected.

Trustees, to serve until 1911—Dr. Wisner R. Townsend, New York; Dr. Philip Mills Jones, San Francisco; Dr. William T. Sarles, Sparta, Wis.

The following nominations were made by the President and confirmed by the House of Delegates:

Committee on Medical Legislation — Dr. Charles Harrington, Boston, Mass., to serve until 1911.

Council on Medical Education—Dr. Victor C. Vaughan, Ann Arbor, Mich., to serve until 1913.

Committee on Transportation and Place of Session—Dr. M. L. Harris, Chicago, chairman for three years.

The following were elected honorary members:

Dr. Edward F. Schaefer, Edinburgh, Scotland.

Dr. August Martin, Griefswald, Germany.

Dr. E. Treacher Collins, London, England.

The Committee on Awards reported the following awards in accordance with the report of the Committee on Scientific Exhibit:

Dr. H. T. Ricketts: Gold medal for research exhibit on tick fever.

Dr. Fenton B. Turck: Diploma for exhibit illustrating pathology of peptic ulcer.

Northwestern University Medical Department: Diploma for teaching exhibit, illustrating morbid anatomy.

Rush Medical College: Diploma for teaching exhibit, illustrating morbid anatomy.

Dr. Charles H. Beard: Diploma for exhibit of drawings of the human eyeground.

Dr. Maximilian Herzog: Diploma for exhibit, illustrating early human embryology.

St. Mary's Hospital, Rochester, Minn.: Diploma for clinical and pathological exhibit of stereoscopic photographs.

Dr. Edmond Souchon: Diploma for improved method for the preservation and exhibition of anatomic specimens.

Dr. A. M. Stober, Cook County Hospital: Diploma for exhibit, illustrating blastomycosis.

Dr. Mallory and Dr. Wolbach (Harvard): Diploma for exhibit of drawings and photomicrographs, illustrating the classification of tumors.

U. S. Public Health and Marine Hospital Service: Honorable mention for exhibit, illustrating the investigations of Dr. C. W. Stiles on bookworm.

Iowa State University: Honorable mention for instructive tuberculosis exhibit.

Cincinnati Hospital: Honorable mention for creditable group of specimens.

Philadelphia Polyclinic: Honorable mention for creditable exhibit of group of teaching specimens.

Lying-In Hospital of New York: Honorable mention for creditable exhibit.

The Committee on Transportation and Place of Session recommended Atlantic City as the next meeting place which choice was agreed to by the House of Delegates. The Reference Committee on Legislation and Political Action reported, requesting the Committee on Medical Legislation to arrange for a conference with the Committee of One Hundred, the Surgeons-General of the Army, Navy and Public Health and Marine-Hospital Services with a view to securing co-operation on the establishment of a National Department of Health. After the transaction of some routine business the House adjourned.

One hundred and thirty-four members of the House were present out of a total membership of one hundred and forty-two. The meetings of the House were better attended than at any time since its organization. The business was dispatched with accuracy and rapidity, the most notable tendency being the reference of resolutions, communications, etc., to the appropriate reference committees without discussion, reserving the consideration of the questions involved until the reference committee had considered the matter and submitted a report.

The social events of the week were particu-

larly attractive. On Monday night the secretaries of the state associations and the editors of the state journals met at dinner and completed the organization of a state secretaries' and editors' association. A dinner to foreign guests as well as a number of other social events also occurred on Monday evening. On Tuesday evening twenty-seven alumni dinners were held in the various hotels and restaurants throughout the city, the largest being that of Northwestern University Medical School, held at the Illinois Athletic Club, at which over 800 alumni were present. On Wednesday evening the president's reception and ball was held at

the Coliseum, thousands of members and guests being present. On Thursday evening the local profession tendered the members of the Association a smoker at the Coliseum at which the attendance amounted to about 8,000. Numerous social attractions were provided during the day for the ladies and guests, including receptions at the South Shore Country Club, Chicago Women's Club, etc. The sections were all largely attended and the programs were of a high order. The session was in every way the most noteworthy of any which has yet been held and it is anticipated that some years will elapse before the record established will be surpassed.

STATE BOARD NEWS

ANOTHER VIEW THAN THAT OF THE STATE BOARD OF THE PROPER QUALIFICATIONS FOR THE PRACTICE OF MEDICINE.

E—————, Ohio.

State Medical board of Columbus, O.

Hon Sir, I have been studing the general Chemistry course for over 2 years and have found two good ointments, one is for the cure of blood poison and the other is for the cure of runing sores i have tried booth ointments on four of my friends and they claim it is a success and asked Me why i did not practice and i am taking this opportunity to know if youse can give me a Certificate to Practice.

Yours Truly,

EXAMINATIONS HELD BY THE STATE BOARD OF EXAMINATION AND REGISTRATION.

EXAMINATION IN ANATOMY.

June 8, 9 and 10, 1908.

1. What is the difference between mucous and serous membranes?
2. What forms the deep palmar arch?
3. Describe the origin, course and distribution of the renal arteries.
4. Describe the different varieties of epithelium.
5. Name the muscles that form the abdominal walls.
6. Name the cavities, openings and valves of the heart.
7. What features of the bony skeleton characterize the sex?
8. What is a ginglymus joint? Give example.
9. Give the gross anatomy of the liver.
10. Describe the cerebellum.

S. H. S.

EXAMINATION IN CHEMISTRY.

June 8, 9 and 10, 1908.

1. What is the action of a solution of potassium permanganate when used as a disinfectant?
2. Give a simple test for organic impurities in water.
3. Give the reaction of cow's milk and mother's milk.
4. Name the inorganic constituents of the gastric juice.
5. What is the difference between urea and uric acid?
6. Give the formula, properties and uses of hydrogen dioxide.
7. What chemical tests are most important in the analysis of urine?
8. Give the chemical names for cream of tartar, Glauber's salt, Epsom salt, copperas, sugar of lead and common salt.
9. What antidotes should be used in corrosive sublimate poisoning?
10. Name four organic acids and give the source of each.

J. M. S.

EXAMINATION IN PRACTICE AND PATHOLOGY.

June 8, 9 and 10, 1908.

1. What points in the microscopical appearance of sarcoma would enable you to make a diagnosis?
2. Describe the technique of rectal alimentation. What foods are used?
3. What symptoms mark failure of compensation in chronic valvular diseases of the heart?
4. What amount of urine is excreted in twenty-four hours in health? What is its specific gravity? How are each of these influenced in acute nephritis? Chronic parenchymatous nephritis? Chronic interstitial nephritis? Diabetes mellitus?

J. A. D.

5. Describe a typical case of typhoid fever from time of infection.

6. Name the exanthemata acuta and give time of eruption of each. S. M. S.

7. What condition does a decrease of hydrochloric acid indicate? (b) An increase?

8. Describe eczema and give treatment.

H. H. B.

9. Give the Diazo-reaction test. What does it diagnose and prognose?

10. Discuss immunity, giving attention to acquired immunity, to toxin immunity, and to the theories of the nature of immunity. J. M. S.

EXAMINATION IN SURGERY.

June 8, 9 and 10, 1908.

1. Differentiate shock and hemorrhage, post-operative, as to diagnosis and treatment.

2. Give surgical anatomy of kidney.

3. Give treatment of compound fracture of upper third of femur.

4. Give indications for operative interference in cholelithiasis.

5. Give treatment of cancer of sigmoid flexure of the colon.

6. Describe a method of lateral intestinal anastomosis.

7. What are the blood findings in pyogenic osteo-myelitis?

8. Give indications for enucleating eye.

9. Give common sources of wound infection.

10. Describe resection of shoulder joint.

H. E. B.

EXAMINATION IN GYNECOLOGY.

June 8, 9 and 10, 1908.

1. Describe the structure of the perineal body.

2. Enumerate three causes for suppression of menses.

3. Differentiate pelvic hematocoele from pelvic abscess.

4. What may result from lacerated perineum?

5. Describe the technique of washing the urinary bladder and in what conditions is it indicated? J. A. D.

DISEASES OF CHILDREN.

1. Discuss briefly icterus neonatorum.

2. Write a prescription for modification of cow's milk for a child three months old.

3. Give etiology of otitis media.

4. Give etiology of infantile endocarditis.

5. Give diagnosis and differential features of basilar meningitis. H. E. B.

EXAMINATION IN PHYSICAL DIAGNOSIS.

June 8, 9 and 10, 1908.

1. State diagnostic value of decreased resonance of the percussion sound over the lung.

2. State diagnostic significance of dullness or flatness in the left anterior axillary line from the sixth to the eighth rib (Traube's area).

3. What pathological meaning has an amphoric resonance on the chest elicited by percussion?

4. What pathological significance is attached to the cracked-pot sound?

5. In what affections of the lungs is bronchial breathing found?

6. Explain significance of friction sounds.

7. What pathological significance is derived from the enlargement of the superficial abdominal veins (caput medusæ)?

8. What diagnostic significance is given by a frequent pulse (tachycardia)?

9. State pathological significance of the facial paralysis.

10. Describe location and quality of murmurs indicating mitral insufficiency. A. R.

EXAMINATION IN PHYSIOLOGY.

June 8, 9 and 10, 1908.

1. What part of the nervous system is involved in stammering speech?

2. Describe the pneumogastric nerve and its function.

3. Where are the red blood corpuscles formed, and what is their function?

4. Describe lymph. How is it formed?

5. Into what classes is food divided? Give a general description of each.

6. What is the pulse and what do its varieties signify within physiological limits?

7. What are proteids and how are they formed?

8. What physiological conditions influence the secretion of urine?

9. Describe the physiology of menstruation.

10. Where and in what form do the hydrocarbons reach the circulation? H. H. B.

EXAMINATION IN OBSTETRICS.

June 8, 9 and 10, 1908.

1. Describe the blastodermic vesicle.

2. Name some of the causes and some dangers incident to protracted labor.

3. Make a diagnosis of syphilis of the new born; state something concerning the prognosis.

4. What conditions contra-indicate the operation of version?

5. What changes in the blood are produced by pregnancy?

6. How is labor usually influenced by a kyphotic pelvis?

7. The presenting part is well engaged in the pelvis; the anterior shoulder is felt near the median line; the fetal heart sounds are heard about midway on a line from the left anterior

superior spine to the umbilicus; what are the probable presentation and position?

8. What measures would you suggest to overcome uterine inertia?

9. How soon should the cord be ligated? Give your reasons.

10. How recognize tetanus neonatorum?

E. J. W.

EXAMINATION IN MATERIA MEDICA AND THERAPEUTICS (REGULAR).

June 8, 9 and 10, 1908.

1. From what is senna obtained? Give some indications for its use and the preparations employed.

2. Name three drugs that may be used to increase the flow of urine.

3. Write a prescription for internal use in a case of chronic eczema of the gouty type.

4. What antidote would you use in a recent case of poisoning by opium taken by the mouth?

5. When should alkalies be given with reference to meals? Why?

6. What are some of the therapeutic uses of ammonium carbonate? How should it be exhibited?

7. Upon what does the therapeutic value of calcium depend?

8. What remedy do you suggest to be used in diabetic coma?

9. Name three styptics.

10. What are some therapeutic aims of the hot pack?

E. J. W.

EXAMINATION IN MATERIA MEDICA AND THERAPEUTICS (HOMEOTATHIC).

June 8, 9 and 10, 1908.

1. What is understood by the totality of the symptoms in prescribing?

2. Give the leading indications for three leading remedies in pneumonia.

3. Give indications for three remedies in catarrhal laryngitis.

4. What symptoms call for antimonium crudum?

5. Give leading indications for lachesis, also for crotales.

6. What indications call for mercury?

7. What are the leading indications for nuxvomica?

8. Give leading symptoms of calcarea carb., silicia and lycopodium.

9. Name three remedies that act especially upon the heart, with indications.

10. Name three emetics with dose.

H. E. B.

EXAMINATION IN MATERIA MEDICA AND THERAPEUTICS (ECLECTIC).

June 8, 9 and 10, 1908.

1. What do you understand by specific medication?

2. What symptoms would lead you to prescribe bryonia?

3. Give the uses and specific indications for collinsonia.

4. What is the common name of apocynum cannabinum? How use the specific medicine?

5. In what class of cases would you prescribe the preparations of cinchona? Under what conditions?

6. Describe a case in which drosera would be the remedy.

7. What are the uses, doses and specific indications of black haw?

8. What is the botanical name of blue flag and what are its uses?

9. What is the specific symptomatology of veratrum?

10. Give the specific symptomatology of asclepias tuberosa.

S. M. S.

BOOK REVIEWS

DISEASES OF THE NOSE, THROAT AND EAR. Medical and Surgical. By William Lincoln Ballenger, M. D., Professor of Otology, Rhinology and Laryngology, College of Physicians and Surgeons, of Chicago University of Illinois. Octavo, 896 pages, with 467 engravings and 16 plates. Cloth, \$5.50 net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

In Dr. Ballenger's new work on the Nose, Throat and Ear, we have an excellent addition to the works that have before been published on these subjects. It is the aim of the author to present all the subjects in full instead of dealing with the nose and throat and their closely-associated conditions of the ear alone. In looking over the volume one is favorably struck by the amount of new material and the concise and yet comprehensive manner each condition is brought out. His method of presenting each step in various operations of the three regions, deserves special mention, that is, with numbered paragraphs complemented with suitable drawings. Nearly every operation is illustrated, and some with a dozen or more drawings. For such a combination of textbooks and atlas we predict great popularity, especially with the undergraduate and busy practitioner who is called upon to diagnose all and to treat many of the conditions relating to these special subjects.

GOEPP'S STATE BOARD QUESTIONS AND ANSWERS. By R. Max Goepf, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Octavo volume of 684 pages. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$4.00 net; half morocco, \$5.50 net.

This is a work that should be welcomed by students and graduates who contemplate taking the State Board examinations. It is comprehensive and all embracing as far as the wants of the average candidate is concerned.

It is well systematized and an excellent judgment seems to have been employed in the selection and grouping of the questions; we believe it very well adapted for its avowed purpose of reviewing for examination after one has once covered the ground in the ordinary text-books.

BRADYCARDIA AND TACHYCARDIA: WITH COMPLETE ENGLISH ABSTRACTS AND FOREIGN BIBLIOGRAPHY. Part II. In a series of monographs on the symptomatology and diagnosis of disorders of respiration and circulation. By Prof. Edmund von Neusser, professor of the Second Medical Clinic, Vienna; associate editor of Nothnagel's Practice of Medicine. Authorized English translation by Andrew MacFarlane, M. D., professor of medical jurisprudence and physical diagnosis, Albany Medical College, etc. 150 pages. Cloth. Price, \$1.25 prepaid. New York: E. B. Treat & Co. 1908.

This little work is devoted to drawing attention to the importance of investigating the underlying conditions in variations of the pulse rate from the normal.

In both bradycardia and tachycardia the various causes are given, illustrated by clinical reports of cases, with autopsy findings. Interesting therapeutic deductions are drawn which would seem of practical value.

In the appendix W. H. Howell, of Baltimore, discusses briefly the cause of the heart beat. Numerous brief abstracts of articles on heart block, bradycardia and tachycardia by various authors appear and add considerably to the interest and value of the book.

ADENOMYOMA OF THE UTERUS. By Thomas S. Cullen, M. B., Associate Professor of Gynecology in Johns Hopkins University. Large octavo of 270 pages, with illustrations by Herman Becker and August Horn. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; half morocco, \$6.50 net.

Dr. Cullen's work reviews the early literature on adenomyoma; analyzes the various stages of the disease, and gives the detailed pathological findings in over ninety personally-observed cases of adenomyoma of the uterus. The subject is dealt with from a pathologic, clinical and surgical standpoint. Dr. Cullen believes that adenomyoma has a fairly well-defined clinical history, and that in a majority of cases it can be diagnosed with a relative degree of certainty.

In the chapter on "Differential Diagnosis" he considers "uterine polypi, sarcoma, uterine myomata; large venous sinuses in the mucosa; marked proliferation of the stroma of the mucosa; abortion; carcinoma of the uterus; very large and dilated uterine glands with outgrowth of the stroma of the mucosa; tubal pregnancy; chorio-epithelioma, salpingitis and endometritis."

The work is printed in duo-tine ink; is superbly illustrated by Becker and Horn, and constitutes a valuable pathological contribution to the subject of gynecology.

A PRACTICAL GUIDE TO THE EXAMINATION OF THE EAR. By Selden Spencer, A. B., M. D., instructor of otology in Washington University; aural surgeon to the Martha Parsons Free Hospital for Children. With an introductory chapter by H. N. Spencer, M. D., LL. D. C. V. Mosby Medical Book Company, St. Louis.

This little work will be greatly appreciated by students working in dispensaries and by the general practitioner who wishes to acquire at least the ability to examine and diagnose the ordinary conditions in the ear. It is eminently practical and graphic in its descriptions. The illustrations are excellent and add considerably to the value of the text.

PRACTICE OF MEDICINE FOR NURSES: A TEXT-BOOK FOR NURSES AND STUDENTS OF DOMESTIC SCIENCE, AND A HANDBOOK FOR ALL THOSE WHO CARE FOR THE SICK. By George Howard Hoxie, M. D., Professor of internal medicine, University of Kansas. With a chapter on the Technic of Nursing, by Pearl L. Laptad, principal of the Training School for Nurses, University of Kansas. 12mo of 248 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, \$1.50 net.

From time to time objections are raised against the teaching of nurses more than the actual routine training in their profession lest they encroach upon the prerogatives of the medical profession. The old proverb is frequently quoted, "a little knowledge is a dangerous thing." A distinguished English physiologist once said, "If a little knowledge be dangerous, where is the man who has enough to be out of danger?" It seems to the writer that a certain amount of medical knowledge will greatly assist in the intelligent understanding and carrying out of the physician's directions, and that the above work is very well adapted to this very purpose—avoiding unnecessary technicalities and using very plain language. The author graphically describes the ordinary diseases which the nurse is called upon to meet. The chapters on surgical nursing, the care of the patient and sickroom, directions in cases of contagious diseases and skin diseases are particularly helpful in helping round out the ordinary training school curriculum.

COUNTY SOCIETIES

FIRST DISTRICT

The Adams County Medical Society met Wednesday, June 24, at West Union, Ohio. The following was the programme: Morning session, 11 a. m., "Gallstones," O. W. Robe, Portsmouth; 12 m., dinner at Commercial Hotel. Afternoon session, 1:15 p. m.: President's address, Frank Smith, Cherry Fork; "Hemorrhoids," A. L. Test, Portsmouth.

The Warren County Medical Society met at Carnegie Library, Lebanon, Ohio, 10:00 a. m. Tuesday, June 9, 1908. Symposium on gastroenteric diseases of infancy and childhood. "Anatomy and Physiology of Stomach," J. M. Wright; "Anatomy and Physiology of the Intestine," Dr. Lang; "Acute Gastric Indigestion," Dr. Randall; "Acute Gastritis," Dr. Blair; "Chronic Gastric Indigestion," Dr. Stohl; "Acute Intestinal Indigestion," Dr. Holbrook; "Acute Gastroenteric Infection, Etiology and Pathology," Dr. Williams; "Symptomatology of Simple Gastroenteric Infection," N. A. Hamilton; "Cholera Infantum," Dr. Ellison; "Treatment of Same," Dr. Death; "Etiology and Pathology of Acute Iliocolitis," Dr. Moore; "Pathology of Catarrhal Ulceration, Acute Membranous Iliocolitis, Associated Pathology," Dr. Keelor; "Symptoms of Mild Catarrhal Iliocolitis," Dr. Cadwallader; "The Severe Form," Dr. Stevens; "Symptoms of Follicular Ulceration," Dr. Roberts; "Symptoms of the Membranous Variety," Dr. Hough; "Symptoms of Chronic Iliocolitis," A. T. Wright; "Diagnosis of the Same," Dr. Sherwood; "Atmospheric Influences in Gastroenteric Diseases," Dr. Lewellen; "Influence of Slop Dairy Milk in Same," Dr. Mounts; "The Local Milk Supply," Dr. Mardis; "Meat Broths, Egg Water and Gruels," Dr. Kreighoff; "The Death Rate of Gastroenteric Diseases," D. B. Hamilton; case reports, Dr. Romine.

SECOND DISTRICT

The Champaign County Medical Society have arranged the following programme at Urbana, June 11: "Diagnosis and Treatment of Varicose Ulcers," W. C. Zellar, St. Paris. July 9: "Headache—Etiology and Treatment," E. C. Offenbacher, St. Paris.

August 13: "Treatment of Valvular Lesions of the Heart," Robert Henderson, Urbana. September 10: "Diagnosis and Treatment of Summer Diarrhoeas of Children," J. V. Longfellow, Urbana. October 8: "Typhoid Fever—Diagnosis and Treatment," S. M. Mosgrove, Urbana. November 12: "Anesthesia and Anesthetics," E. W. Ludlow, Urbana. December 10: Report of a clinical case by each physician present. President's address; election of officers.

THIRD DISTRICT

The Marion County Medical Society held a symposium on the care, management and treatment of children in the public schools on Tuesday evening, June 2, to which were invited all of the physicians of the county, the clergy, members of the Board of Education, superintendents of schools and teachers, and janitors of the schools of the city of Marion.

The following program was given: "General Medical Examination of School Children," Harry L. Uhler; "Examination for Defective Sight and Hearing," Elmer O. Richardson; "Precautions for Safety," Dana O. Weeks; "Management of the Mentally Defective School Children," John W. Adair; "Is Night Study in the Lower Grades Advisable?" Lewis D. Hamilton; "Are Kindergartens Advisable?" N. F. Tilton; "Comments," Prof. H. L. Frank.

The guests were invited to join in the discussion after the reading of the papers, and many interesting points were thus brought out. The meeting was a great success, and it is hoped that far reaching results may spring from it.

A meeting of the Logan County Medical Society was held at Mansfield, June 11. The program was as follows: "Hip Joint Disease," J. C. Banning; "Knee Joint Affections," W. W. Hamer; "Club Foot," B. S. Leonard.

The papers were thoroughly discussed, after which a lunch was served by the Mansfield physicians.

The regular meeting of the Seneca County Medical Society was held at 8 p. m. at Tiffin, Ohio, May 21: Paper, W. H. Benner, "Jaundice: Its symptomatic significance; paper, R. R. Hendershott, "Treatment of Tonsillitis."

FOURTH DISTRICT

The Ottawa County Medical Society met June 10. Drs. Stamm and Ickes, of Fremont, were visitors of the society. The following program was rendered "Endocarditis," E. B. Hyck, Oak Harbor; "Myocarditis," J. C. Bowman, Martin. The papers were thoroughly discussed.

Dr. Stamm, on behalf of the Sandusky County Society, invited the Ottawa County Society to join them July 2 in a convention and annual outing.

The surgical section of the Academy of Medicine of Toledo and Lucas county met May 22. The general subject was "Surgical Tuberculosis."

Chas. W. Moots read a paper upon "Tuberculosis of Bones and Joints." He said as in all other pathological conditions with which we come in contact, the diagnosis is the sine qua non. The diagnosis must be made early, so that treatment may be conservative, especially in children, is conservative treatment indicated. The majority of joint affections in children, especially non-articular, are tubercular.

The symptoms are general and local. The general symptoms are loss of appetite, loss of weight, lowered resistance to fatigue and elevation of temperature.

The local symptoms are classic: First is muscular spasm, or muscular contraction about the joint. This tends to bring the articular surfaces together, favoring destruction and necrosis. Next is retarded growth or even atrophy. This latter is brought out by the Roentgen ray. Swelling may not be of much importance, but its character may be pathognomonic. It has a semi-fluctuating condition quite characteristic. Abnormal position of the joint comes later.

Pain is variable and should not be considered characteristic. Pain in the knee may occur from a tuberculosis hip. The lameness and impaired function are due to the pain and the stiffness caused by the muscular spasm.

To be excluded in the diagnosis are:

1. Acute traumatic synovitis.
2. Acute infective synovitis.
3. Suppurative synovitis or osteomyelitis.
4. Gonorrhoeal arthritis.
5. Arthritis deformans.

Inoculation of Guinea pigs is valuable in making the diagnosis.

The simplest, easiest, quickest and most positive way is the tuberculin reaction. The technique of the test was described.

Treatment.—This is hygienic and surgical. The local treatment consists in the following:

1. Immobilization of joint, with or without extension.
2. Relieve joint of all weight bearing function.
3. Injections into the joint.
4. Removal of tuberculosis foci.
5. Excision or arthrectomy.
6. Amputation.

Immobilization is done by plaster of paris or splints. Injections of 10 per cent. iodoform are often advantageous, even without an abscess.

Arthrectomy is often useful in children. Amputation is reserved for those desperate cases in which all other measures have been tried and were without avail.

Dr. Moots closed with a plea for the general practitioner to seriously consider articular joint affections and to use every known means of arriving at a diagnosis.

The second paper was read by Dr. Green in the absence of Dr. Gillette upon "Tuberculous Peritonitis." This condition was described and the differential diagnosis considered. A number of cases were reported in which operation has been performed and good results secured.

James Donnelly read a paper upon "Tuberculous Adenitis." Dr. Donnelly first described the anatomy of the lymph glands and vessels showing how the nutrition of the cells is dependent upon them. The lymphatic system is readily accessible to the absorption of germ life. Exposed mucous surfaces like the tonsils, intestines, appendix, Peyer's patches, etc., permit the passage of tubercle bacilli without themselves becoming necessarily involved. In 130 cases of pulmonary tuberculosis, the tonsil was involved 94 times or about 69 per cent. of the cases. As a rule tuberculous involvement in the glandular system is in the direction of the lymph currents and thus can be explained by the fact that the lymph vessels contain valves and infection must therefore go without the current.

Surgical procedures are not always necessary in the treatment of tuberculous adenitis. Where only a few glands are involved, hygienic conditions, tonic treatment may be all that is necessary, on the other hand, when the

involvement is considerable, complete removal offers the only hope. The cervical region is most frequently involved previously and requires the larger number of operations.

The anatomical relations of the chief gland groups were described and the technique of operation discussed. Repetition of the operation may be necessary.

N. Worth Brown read a paper upon "Tuberculosis of the Pleura." Inflammation of the pleura is by far the most common complication of pulmonary tuberculosis. Pain first calls attention to the condition. The friction met can be determined upon auscultation. A large proportion of the cases of primary pleurisy may be ascribed to tuberculosis infection and the frequent recurrence of pleuritic pain is suggestive of a latent process preceding the development of pulmonary phthisis.

The treatment of early fibrinous pleurisy is rest for the affected side, local application of heat and the administration of anodynes, a combination of sodium salicylate and Dover's powders is efficient.

Effusions take place later. An interesting point in the differentiating an exudate from a consolidation is the existence in exudates of a triangular area of dullness upon the opposite side, so-called Grocco's sign. It is produced by lateral pressure exerted on the opposite side.

The physical signs of pleural effusion were mentioned and described. In case of doubt, a needle should be introduced. Skiagraphs of the thorax are of assistance.

Treatment of a tuberculous pleurisy may be divided into:

1. Expectant.
2. Aspiration.
3. Drainage.
4. Occlusion.

Expectant treatment is applicable only to small effusions. It is identical to the treatment of fibrinous pleurisy.

Aspiration is generally employed. The technique of this procedure was described. The aspiration may require repetition. Pulmonary gymnastics may be used to restore expansion to the contracted tissues. The blowing bottle of Wolff is well adapted to this procedure.

Should a secondary non-tuberculous infection supervene, the condition must be treated as an empyema. If aspiration for several months is of no avail, a thoracotomy is justifiable.

Tuberculin is indicated in this class of cases for two reasons.

1. It increases the relative immunity of the patient.
2. It excites a mild stimulation of the site of infection thereby producing a more rapid development of granulation tissue.

The treatment of occlusion consists in the injection of foreign substances. Their use in the pleural cavity has not met with the success it has found elsewhere. Beck's method of injecting bismuth and vaseline was described. This is used both for diagnosis and treatment. Bismuth is supposed to stimulate the migration of leucocytes to the pleura and produce an active phagocytosis. Dr. Brown is skeptical towards the claims of Beck.

The June meeting of the Lorain County Medical Society was held at Elyria on the ninth. It was an open meeting and the discussion of tuberculosis, its prevention and the formation of a society in our county for that purpose. A committee on plan of organization is at work and an anti-tuberculosis society will soon be formed. The laity have shown great interest in this subject and it is hoped that much good will result.

Program was as follows: Frank W. Vincent, secretary of the Cleveland Anti-Tuberculosis League, "The Plan of Organization and Work of Anti-Tuberculosis Societies;" Miss Nellie Wilford, "Work of Visiting Nurses' Association;" A. B. Smith, "Treatment of Tuberculosis Subjects by the Class Method;" H. W. Powers, "Stone Cutters' Phthisis: Is It Tuberculosis?"

The Cleveland Academy of Medicine met May 27. G. B. A. Moynihan of Leeds, England, addressed the Academy on the "Surgery of the Large Intestine."

The speaker said in part: The problems connected with this subject are very complex, so little understood and the ultimate results of operations for carcinoma have been so bad that I felt there must be some fault in the operative procedure. I have therefore had an assistant, Dr. Dobson, make a close study of the anatomy of the large intestine. It seems to me a mistake to regard carcinoma as merely a disease of the organ involved, as has been done, and I therefore studied not only the intestine, but also the lymphatic and vascular system connected therewith, not only as regards the growth and dissemination, but

also from the operative point of view. Our findings have led to a considerable difference in the ultimate surgical results.

I will first refer to the malignancy of the cecum and second to the sigmoid flexure and rectum.

The former includes the cecum, small intestine, the ascending colon and hepatic flexure, in which region carcinoma is very common. We have operated upon 20 cases in recent years, and in this region the lymphatic system is the means of transmission of the disease. The superior mesenteric artery gives off a branch to the appendix, and a chain of glands lays upon the ileo-colic artery in such a way as to terminate in a single lymph gland, which is of very great importance. Those glands which are nearest to the intestine, which receive the lymphatic vessel directly, we call primary, while those connected by vessels from the primary gland are secondary glands. The above is a primary gland and in operative cases should be removed, as in all our cases it proved to be involved in the disease process. In many cases retrograde changes cause involvement of the secondary glands which should also be removed, sometime to 12 inches back along the small intestine. An operation, to be successful, must include the removal of, no matter how early the case, the last 18 inches of the ileum, the whole of the ascending colon and part of the transverse colon. This is necessary to include all the lymphatic glands which may be involved, and to also avoid gangrene of the gut. If this is done the prognosis is favorable. We have not lost a single case in 20 or 30 operated in this manner.

We next considered the second area and found results equally unsatisfactory. After studying the anatomy of the blood supply and lymphatic system, we found it to be necessary to ligate the inferior mesenteric artery and resect from the splenic flexure downward to the anus if necessary, removing vessels and glands, and make an end to end anastomosis.

Colostomy is unnecessary and should not be performed.

DISCUSSION.

W. J. Terry, San Francisco, Cal.: It seems to me that this work of Mr. Moynihan's is as much epoch-making as possibly the work of Halstead in breast carcinoma. Mr. Moynihan seeks a name for the gland; that is not difficult to give; it will probably be known in the future as the gland of Moynihan, although it is much against the tendency of librarians and

medical research men to name anything after a person. But I am sure we cannot find any better name for it. There was one point about the discussion of the gland that was of interest; its being directly in front of the duodenum (the third portion of the duodenum I believe), and in such close proximity to the blood vessels that they had to be sacrificed, and as I understand, it necessitates the sacrifice of all the ascending colon and a portion of the transverse. Is it not feasible that the gland on the right side may be removed without disturbing the arteries, because, as some have shown, the arteries are practically never invaded by carcinoma? Is it a question simply of venous blood supply or arterial? If the vein has to be cut, would that necessitate the resection of such a large portion of the bowel? But if a question of the artery, could that artery be spared by taking away the outer sheath of the artery? I simply offer that as a question without knowing the facts.

The mobilization of the intestine is certainly a very spectacular device, so much so that with the operation on the descending colon we have something entirely new and something that will do away with the disadvantages of a colostomy. Mr. Moynihan emphasizes the disadvantages of colostomy more particularly from the standpoint of the physician. I think it should be emphasized from the standpoint of the patient. Many patients will refuse to have this operation done if they believe that they have to go around with an artificial anus afterward. A more disagreeable thing is hardly to be imagined.

I thought I might say something upon another phase upon which Mr. Moynihan has not touched. I had an example in a case of megacolon. I had the opportunity of seeing this case several years ago, where the diagnosis was not made and the symptoms were decidedly puzzling. A young woman presented herself having a tumor of the upper abdomen the size of an infant's head. This tumor could be moved around freely from place to place, in fact, from the right iliac region down and across almost to the left. The mobility was very marked. The patient was seen by a number of physicians and various diagnoses made, from movable kidney and movable spleen to a tumor of the omentum, which seemed on the whole the most likely in view of the extreme mobility.

On going in we found an enormous colon, one that measured nine inches in diameter and was very much elongated, so that when the abdomen was opened this large mass came out. The walls were very thick, as thick as the stomach walls, and the longitudinal diameter thicker than that. The tumor was simply a fecal concretion inside the megacolon, and after much difficulty was broken up and forced out. Then came the question of dealing with the large colon. Not having any procedure advanced before that we knew of, it simply occurred to us to narrow it in the same way one would narrow a dilated stomach by gastroplication (coloplication), and that was done longitudinally by multiple sutures; the colon was simply infolded more and more by sutures until it was

narrowed the entire length. That meant a great deal of suturing and a long time was occupied in going over five feet of intestine. The patient made a splendid recovery and has had no trouble since.

Since then I have looked up the literature of the subject and found that the operation has been done elsewhere, as a rule either resection or a side switching of the large colon and lateral anastomosis.

D. P. Allen: So far as my experience goes, malignant growths are much more common in the sigmoid than in the cecum. So far as operations upon the sigmoid are concerned, it seems to me that we must be guided as to the value of his suggestions by experience. Some thing has been said about the experience of Halsted with reference to carcinoma of the breast. Theoretically, all lymphatic glands should be removed. We know the malignancy is not confined to those found macroscopically. Microscopically, it is found that in a high proportion (85%) there are secondary growths in the axilla. Experience shows, however, that it is a question whether it is wise in all cases to dissect the supraclavicular region. My personal experience with carcinoma of the breast has been that rarely recurrence takes place above the clavicle. Then it would seem that operation above the clavicle is rarely indicated.

In the last discussion in Washington, in which Halsted took part, he seemed to recede from his original position.

Now, as to the resection of the sigmoid flexure, theoretically the operation presented by Mr. Moynihan seems to be the correct operation, but this must be proved by statistics, and I shall look forward with great interest to the further work along this line. My own experience with growths of the sigmoid is that they are very small, and whether in this condition of affairs it is necessary to make the wide dissection seems to me must be determined by experience in operation in this area.

Dr. Stamm, Fremont: I have only the experience of two cases of carcinoma of the sigmoid flexure. One I operated upon ten years ago, making an end to end suture. The other case I reported about six years ago. I made a resection of about seven or eight inches of the sigmoid flexure. After about thirty-six hours I was called. The patient was having much pain; his bowels wanted to move, and the colon was stretched out and loose from the mesentery, and when I got to the hospital I cut it off and let him go for a few days, and then I thought I would follow Paul's plan thoroughly. The patient is living now (six years in July). Mr. Moynihan's results are remarkable and ought to induce us to follow his way of operation.

Dr. Parker: I was very much interested in the description that Mr. Moynihan gave of his operation. I have no experience to offer myself. The thought comes that it has rendered an operation absolutely anatomical; that all our best work is being done, for example, in other departments of surgery by following abso-

lutely anatomical lines. This complete removal of the lymphatics is the essential part in treating carcinoma. In our work in the breast, some of you may be familiar with the work of Cooper, who, I believe, has given us the best description of the lymphatics of these glands, and he shows why it is after the most careful and extensive removal of the lymphatics, breast, fascia and muscles, we fail because we look too much in one direction for the lymphatic channels, and here we find in carcinoma that there is a deviation of a secondary channel, and in the breast they go to the mediastinum, which is beyond our reach. I was charmed with the way Mr. Moynihan presented this work, which is entirely new to me, and I shall look forward with interest to the work as taken up by the author.

Dr. Biggar: I thank you for the privilege of being here and listening to so eloquent a speaker as the distinguished surgeon from Leeds. I thank you for the privilege of being so instructed as I have been tonight. On a former occasion, not long ago, when Dr. Kelly was here, they made the assertion that there was nothing new in methods or in extensive operations; that there was a perfection to be attained in regard to the technique which would permit of more difficult operations being successful, but tonight we have illustrated a plan which is entirely new and novel and originated no doubt with the gentleman who has addressed us. The doctor has made it apparent that it is simple indeed—this operation. I may say that it is said that he who plants a tree is a benefactor, but greater is the man who by an operation can not only prolong, but can save life. This is not a simple operation in my estimation, but it proves another thing, and that is this, that the authors do not yet give us all the organs of the body. I was much amused in years gone by in talking about the simplicity of operations, when trachelorrhaphies were then largely in vogue and when it was the initial step to gynecological work. In doing a trachelorrhaphy a doctor from the country brought a patient, and after witnessing it he said in surprise at its simplicity, "When I go home I will operate on the cook."

Dr. Bunts: It would not behoove one with the small experience I have had in carcinoma of the large intestine to attempt to discuss such a paper as we have heard this evening, and yet I cannot remain in my seat and not give voice to my appreciation of what has been given us tonight. It has lifted a cloud from the field of operation upon carcinoma. With colostomy staring us in the face, with the pitiful condition in which it leaves the patient, we approach operation upon the rectum and sigmoid with great hesitation and without hope on the part of the patient. This system of mobilization of the large intestine, while I cannot believe it is quite as simple as the speaker has described except in his own hands, yet with a certain amount of practice we may hope in a certain way to approximate at least the results he has obtained, and if we may do this I think we may

relieve many of our patients of a disease which we have heretofore been unable to cope with.

Mr. Moynihan (closing): The points that have been raised in this discussion are those which at the present state of our experience are in question. Dr. Allen has raised the question in a way which I should like to have brought before you had I been in the audience and not on the stage. So far as the dissemination of carcinoma of the large intestine and the cecum particularly is concerned, there are only two possible paths of dissemination—the first by means of the lymphatic system, the second by means of the venous system. I have myself seen only two specimens where it seemed clear that the dissemination was through the venous system. In carcinoma of the breast it is evident that the lymphatic system is chiefly involved, and if the lymphatic system is involved in the case of carcinoma of the large intestine this is within our grasp, and we can make practically certain that we have eradicated every particle of it. In the breast Dr. Halsted's work is almost beyond criticism. He seems to me to have enunciated some of the greatest principles that have been put forth by any American surgeon, but I think he has ignored a certain fact, which Dr. Handley's work has shown, and that is the importance of the epigastric infection of carcinoma of the breast. We know that the liver and abdominal infections which occur in carcinoma of the breast are due to a direct permeation of the deep fascia in the epigastrium and to the direct passage of cancer cells into the hepatic. Now, if that is the case, and I think Dr. Handley's work will be established, there is an entirely different problem of cancer in the breast and that of the large intestine.

Replying to Dr. Biggar, I should like to say that it is a very great pleasure to hear such an eloquent speaker. All the ambassadors which you send us simply humiliate us by their eloquence and the readiness with which they tell stories. It has occurred to me that I might tell you a story which would exemplify my own position. The story goes that a fisherman of the east coast of York one day went out on a bridge which extended out into the sea to fish. As chance would have it, he gradually nodded and eventually tumbled into the sea. A passerby hastened to his assistance and finally brought him around, and he said, "Pray, sir, will you tell me how you came to fall in?" The man replied, "I did not come to fall in; I came to fish." I am bound to say that when the representative of Cleveland in the American Surgical Association attacked me with the particular request that I should come here tonight I thought I had come to America to learn and not to chatter, and I want to say this—that you are doing us a very great deal of good in surgery over in England. The best surgery in the world today is being done in America, and for one to come over here and find the enthusiasm and the simply magnificent work in surgery is the kind of thing that makes a man feel a great deal better than when he first landed. I consider it a very great pleasure to meet so many

of the men doing the world's work in surgery here. I want to thank you all very much and to say that I hope you have not suffered unduly from the heat and the oppressive argument. I thank you all from the bottom of my heart.

At the meeting of the Cleveland Academy May 1, Geo. W. Crile read a paper entitled "Some Observations on Grave's Disease in Dogs."

The essayist stated that he and Dr. Prendergast had carried out a series of experiments on two dogs which seemed to present clinically the evidences of Grave's Disease. After several days' observation of each dog under normal conditions, so as to establish a means of comparison, each dog was subjected to various forms of psychic excitation, such as fear, anger, and sexual excitation.

For instance, animal No. 1 was easily thrown into marked excitement, by a threatened whipping; in six hours the temperature would rise, tachycardia be marked, the dog would tremble and show gastro-intestinal disturbances even to diarrhoea. In a short time the symptoms gradually subsided. The emotion of anger separate from fear and sexual excitation produced like toxic symptoms.

Psychic excitation followed by the administration of an anesthetic rather roughly, produced marked hyperthyroidism. As a control, when given morphia a short time previously and then being gently anesthetized for the same length of time, the dog showed no symptoms of hyperthyroidism whatever. A parallel which seems very close to the different methods of anesthesia and operations upon cases of Grave's Disease in the human subject.

The above experiments were controlled and compared with similar ones on normal dogs.

The injection of the juice of thyroid obtained by the Buchner press was next tried, with very marked effect. In the two dogs with Grave's Disease, the symptoms of thyroidism come on sooner and lasted longer and were much more severe than in the normal dogs, the temperature in the former continuing elevated for three to five and in once case ten days.

As a control the juices from a number of other organs, as kidney, liver, etc., were injected in much greater doses, but with no similarity of symptoms, showing similar results to the observations along the lines in the human subject.

The objects of these experiments was to prove that in Grave's Disease the greater power of excitation and consequent hyperthyroidism came through the nervous system, and that psychic excitation either directly or indirectly causes discharge of excessive and even fatal thyroid secretion; that the greatest factor in the mortality was not the operation per se, if well done, but what took place previously, that is, the fate of the patient may have been sealed before the first incision was made.

This has since been corroborated in our later experience in operating on human subjects. It has been our endeavor to seek to conceal from patients that an operation is to be performed, and two cases, very similar in character and degree operated upon the same day would seem to illustrate fully and definitely demonstrate our hypothesis. In both, the time of operation was kept secret; ether was administered gradually under plea of treatment by inhalations. The first case was considered rather the more severe and was operated upon first. She did not know for three or four days that an operation had been performed, and made a splendid recovery. The second case by accident learned of the date set for the operation and while dreading it, said nothing to indicate her knowledge until she awakened from the anesthetic; she died 12 hours after the operation with marked symptoms of thyroidism. Her temperature rose to 107 at the time of her death, and to almost one degree higher, post mortem.

We feel convinced from eleven clinical cases and these experiments on dogs that the key to success in operation for Grave's Disease lies in the elimination of nervous disturbances due to psychic influences.

DISCUSSION.

Dr. Marine: I was very much interested in Dr. Crile's presentation of the subject, and there seems to be some truth in the old truism that what you don't know won't hurt you, but with the true psychical side I am not familiar. I have had several communications from the surgeons throughout the country relative to operations on individuals affected with nervous diseases, and they are all of the opinion that they withstand operation much worse than normal individuals. The factor of psychotherapy or suggestion is a factor in all nervous conditions, and I am certain is not applicable to only one group of patients.

Turning to the subject of exophthalmic goiter in dogs, I think that term is misleading. The veterinary literature contains numerous references to exophthalmic goitre in dogs and in all

domestic animals and in many of the wild animals, but what they are describing is a condition which occurs in goiter districts (October number of *Annals of Surgery*). Of course it is, I think, in a strict sense the same thing as exophthalmic goiter in man, but in the sense we understand Graves' disease I don't think it is. Those nervous manifestations are not prominent. I have never seen or heard an account of a case in an animal when I could take it for granted that actual exophthalmos had been observed. Now, this condition which here is marked—tachycardia, anemia and a certain degree of nervousness—this condition is more properly described as a cretinoid condition. It is misleading to speak of this as exophthalmic goiter. There are all grades of this condition. It is in dogs we see the true cretinism; perhaps also in sheep, cattle and hogs. The young are born with huge enlargement of the thyroid and an enormous thymus; as a rule, enlargement of the spleen and enlargement of all the lymph glands of the body. That is a condition we associate with cretinism, which occurs in the young, and if not too bad they recover, so that they normally tend to recover spontaneously, but may go on to very marked grades, also associated with hypertrophy of the heart. The tissue changes are the same in all animals. The same change occurs in the thymus—that is, it is enlarged, and the spleen is also enlarged. In the condition in dogs, while probably the same condition as exophthalmic goiter in essence, yet the phenomena of nervousness and exophthalmus are really accessory and accidental, and I doubt if they occur in animals. Hypertrophy of thyroid occur in about 9 per cent. in the dogs in this district and to a less extent in sheep and hogs, etc.

Dr. Herrick: I would like to ask Dr. Crile if he has had any experience in operating for other conditions on patients with Graves' disease. I had an experience in two cases—one appendicitis and the other a perineorrhaphy. Both of these patients had marked Graves' disease, and they neither one showed nervous symptoms following operation. I would also like to ask if he has observed cases of Graves' disease having a rise in temperature after sudden fright from other causes.

Dr. Baker: Some of you probably remember that Dr. Parks, of Buffalo, a few years since delivered a lecture on Graves' disease, in which he pictured the horrible death that was sure to overtake these individuals. I could not resist remarking at the time that the only deaths I had seen in these cases were those occurring on the surgeon's table. This did not seem to meet with the approval of the surgeons present, and yet, talking with the general practitioner, their experience seems to be similar to mine. You know that the exophthalmos is one of the prominent symptoms, and very naturally they seek the ophthalmologists for relief. Very many of these cases have errors of refraction. I have fitted them with glasses, and, because of breaking the glasses or for other reasons these patients keep returning, so that many of these cases I have had under observa-

tion for from five to twenty years. I wish to speak of fifty cases which I have had under observation, which are only a very small number of those seen. These were typical cases; they had the tachycardia and tremor and all the symptoms of Graves'. Of this group of fifty cases six have died. Three of them died on the surgeon's table. Of the other three, one died twelve years after of pneumonia, another in fifteen years of childbirth and the third of pneumonia in nine years. The average length of time they were under observation was nine years. The others are living and happy.

Dr. Crile: I would like to ask Dr. Marine, who is such a very high authority on the subject, whether he feels that the thyroid gland in its distribution throughout the animal kingdom, in its evolution is about the same, whether the disease is similar in man. Dr. Marine knows a thousand times more about Graves' disease than I do, but I am unable to follow the argument that the dogs do not have Graves' disease. I think the greatest misfortune in this disease is that the term exophthalmic goitre is used in connection with it. One of the most insignificant symptoms seems to have caught the attention of the public. It gives exactly the position of being unable to see the tree because of the leaves. Take, for example, an animal that shows a large, vascular, pulsating thyroid gland, coming on acutely, attended with rise in temperature and tachycardia, with reflex vascular symptoms, with the metabolic changes of Graves' disease, with the voracious appetite, with the gastro-intestinal symptoms and all the symptoms of the tremendous metabolic changes that occur; we can readily understand that there may be a difference in the form of the eye. I believe that some of these dogs having this clinical picture are properly described as having Graves' disease. I have learned a great deal from Dr. Marine on the subject of goiter, and I want him to come in closer clinical contact with the Graves' cases. Clinically, the physiological test is, after all, the test. If a certain disease produces certain marked physiological changes, that becomes the important test. According to my view of Graves' disease, I cannot help feeling that the metabolic changes are the most important, and if the biochemists will give us some way in which this may be obviated the key to the problem has been discovered.

I would like to reply to Dr. Herrick that I have operated on Graves' cases for other affections. In the paper of Barton Cooke Hurst, "Operations Upon Other Parts of the Body in the Presence of Graves'," Hurst has shown that the mortality rate is just about as high as in operations upon the gland itself. I saw a death in a case of fracture in a Graves' patient. We all know of instances in which they have been killed by psychic shock. Dr. Yarian related to me the case of a patient with Graves' who was virtually frightened to death by a drunken husband. I have known death to occur from acute grief. We see the disease itself begin with great mental strain or grief. I am sure patients have been killed on the operating table in this way. Dr. Prendergast, while he did not

kill the case by fright, caused the dog very great distress.

To reply to Dr. Baker's study of this disease, I should like to ask him whether his cases were cured by correcting the refraction or were they treated in other ways. If correcting errors of refraction have cured these cases, it would seem like a very good key to the whole problem. I think statistics are very hard to work out. A surgeon's results are in his hospital records, and even if he would he cannot avoid the common knowledge of the immediate results of his work. We are only too sure of those cases of ours, and we carry them in our minds. It is easy indeed for any one carrying a large practice to not always know the terminal stage of his cases. Dr. Baker has certainly had an unusual success in the treatment of his cases, and I really should like to know more about the plan followed.

Inasmuch as Dr. Baker has raised the point as to the purpose of operation, I should like to refer to Kocher and Mayo, for example, and I think any one who succeeds in removing a gland, and enough of it, will be rewarded by the most striking relief that one ever sees in any disease, except perhaps in tri-facial neuralgia. It is true that surgery has had a hard time in solving the problem. We hope the internist will relieve us from the necessity of operating. Heretofore the patients have come to the surgeon in the late stages, when they are no longer good surgical risks. We have been obliged to go through very hard experience indeed until we better understood how to handle our cases. The public at the present time has begun to have confidence in the results since the surgeons have chosen the gentle operation. I cannot accept the pessimistic view that Dr. Baker has expressed, and I would refer him to Kocher's article, in which he says in not a single instance in cases in which he has operated has he ever found a patient not benefited or cured when a sufficient amount of the gland was excised.

Dr. Baker: I wish to say that any one who is familiar with the literature and will read carefully will note that the tendency of this disease is to recover. These cases get well in from one to five years, and it is very rare indeed that the patient dies of the disease; the worst of them recover; in the most hopeless cases the tendency is to get well. The surgeons seem to lose sight of this fact.

Now, as to treatment. There is no specific treatment so far as I know, but if I were to say there is a treatment I would say rest, physical and mental, especially mental. If you would put more stress upon the psychic influences of these cases and less upon the thyroid I think you would get much nearer the truth.

Dr. Marine: Dr. Crile has asked whether I thought the thyroid played about the same physiological role in all animals. The words we use, exophthalmic goiter and Graves', are very bad. The thyroid in these dogs does have about the same physiological activity and presents about the same phenomena in essence, but the nervousness and exophthalmos are really

the result of the disease and not the disease itself. The change in the thyroid is compensatory. I do think that in all animals the thyroid plays the same physiological role—all animals have that disease, if we are going to use the term exophthalmic goitre.

In a paper on "Essential Hemorrhage of the Kidney," by F. E. Bunts, of Cleveland, read before the Cleveland Academy of Medicine, April 17, the essayist said in part:

In October, 1904, a patient was referred for operation for supposed stone in right kidney; she brought with her a radiograph which showed, her physician said, the stone in the kidney distinctly.

Patient was forty-eight years of age; no history of tuberculosis in family. She had had ordinary diseases of childhood and claimed to have had three attacks of typhoid fever at ages of eleven, twenty and thirty years. Had had a pain in right side for four years, not constant at first, but became so in last three months. In March, 1904, first noticed blood in urine, which continued to time of admission. General physical condition excellent. Urinary examination showed: Sp. gr., 1029; a trace of albumin; no sugar; a few granular casts; red blood cells, epithelium and leucocytes.

At operation no sign of stone or growth noted by palpation, and on splitting kidney from pole to pole, the only abnormality discoverable was a central zone of apparently venous congestion. The kidney was sutured and drainage employed. After the operation there was a large amount of blood in the urine, but at time of her discharge, November 20, there was no microscopic evidence of blood, and the microscope showed only a few blood cells. The pain had disappeared. On September 18, 1905, there was no hematuria, and patient had gained in flesh.

This case which might be classed under the title of essential hemorrhage from the kidney, was the first one in which I have cut down and examined the kidney, and the good results of the operation led me to examine the literature.

Boursier, writing in 1890, thought it a symptom of renal lithiasis, the determining cause being uric acid crystals in some and oxalate of calcium crystals in others. These crystals are so frequently present in urine that it would seem a coincidence as much as a cause.

Albarron drew attention to hemorrhage following presence in kidney of limited tubercu-

losis, small neoplasms of cortex, and in certain conditions of nephritis.

Fenwick reported two cases which seemed to result from disturbed innervation, and Elterick reported one somewhat similar, in which bleeding was paroxysmal, but usually present after mental excitement.

Numerous other references were made showing the difference of opinion existing, the main theories being first various minute and perhaps in some cases undiscoverable lesions of the kidney; second, nervous disturbances, and, third, true essential bleeding from normal kidneys.

The following analysis of 70 cases was presented:

1. Sex: 30 males and 37 females, showing occupation and exposure not to be a factor.

2. Age: This varies from five to sixty-five years—with most cases during young adult and middle life.

3. Kidney Affected.—In 55 cases, 32 were right and 23 left, showing tendency to the former. In no case was it stated that both kidneys were affected.

4. Urinary Symptoms.—Albumin in 19 cases, and in several of these the amount was only in ratio to the amount of hematuria—casts present in 19 cases. It was specifically stated in 15 cases that no tubercle bacilli were present.

5. Pain.—Present in 36 cases, and usually painful; frequent micturition and vesical tenesmus were reported.

6. Duration of Hemorrhage.—Fourteen days to twelve years; average, twenty months.

7. Clinical Diagnosis.—In 13, supposed calculus; in 12, tumors; 5, tuberculosis. In only one case was nephritis suggested.

8. Operation.—Nephrotomy in thirty-eight cases, with a secondary nephrectomy in three cases. Primary nephrectomy in twelve cases; needling in two cases. In two cases the bladder was opened for supposed vesical hemorrhage in three cases.

9. Operative Findings.—In eighteen cases the kidney was reported as apparently normal. In 11 cases nephritis was present. In the remaining cases the kidney was reported variously as, friable and anemic; $\frac{1}{6}$ natural size, dense and tough, hemorrhage infarction in lower $\frac{1}{3}$; dark chocolate color throughout; intensely purple, soft and degenerated; small cysts in pelvis of kidney; uneven on surface, lengthened and flattened, parenchyma

thickened irregularly, pieces of false membrane in renal pelvis; congested; adherent in upper third, which was bluish red inside and out, displaced downward, cyanotic, venous and capillary stasis in straight tubes (two cases); diffuse myxangiomatous condition of pelvis, kidney tissue only slightly changed; tuft of vessels surrounding apex of papilla (two cases); enlarged and congested; sclerosis; pyramid capped with slight sandy layer; tuberculosis of summit of papilla with eroded arteriole; hydatid cyst and small islet of sclerosis.

10. Operative Mortality.—Fifty cases were reported as cured; four died. Of these four cases, one lived two months, one died of uremia in 15 days, and of the remaining cases no mention of the cause of death is made.

11. Recurrence of Hemorrhage.—The length of time during which the patient was under observation after the operation ranged from two weeks to seven years and no recurrence was reported in forty-one. In only two was the hemorrhage continuous, and in a few a return of the hemorrhage occurred one, one and one-half, two and three years after the operation.

Essayist's Conclusions:

1. The cause of hemorrhage from the kidney cannot be diagnosed by present methods in a large number of cases.

2. It is probable that there is in most cases a distinct lesion, though the absence of sufficient microscopic examinations of the exposed kidney leaves this, as yet, undetermined.

3. Nephritis is as yet the most frequently demonstrated cause of unilateral hemorrhage in this class of cases.

4. Operation promises a cure in most cases.

5. It is very important to remove a section of the affected kidney to permit of microscopic examination, so that the pathology of this condition may be properly cleared up.

DISCUSSION.

Dr. Lower: Essential hemorrhage of the kidney is the term applied to that class of cases in which there is bleeding from the kidney without any demonstrable cause. I doubt if there really are such cases as essential hemorrhage of the kidney, for it is hard to conceive that we have a bleeding from the kidney without some lesion. There are a number of cases, however, in which no lesion seems to be apparent, yet no doubt by proper methods and a more careful search the cause could be found. I think there are a less number of essential cases being reported each year be-

cause of better methods of determining the cause. Some form of nephritis may be responsible for the bleeding in many of these cases, but it would seem if it were so that there would be more constitutional disturbances than many of these cases show. In 139 cases of hematuria under my observation about one-half of them were hemorrhage from the kidney, and the causes were mainly tuberculosis, renal calculus and stones in the ureters. There remained, however, twenty-two cases which were unclassified. In these cases I was unable to definitely determine the cause. Several of them were operated upon because of the extreme debility on account of loss of blood. In two cases I did nephrectomy. In one case a small calculus about the size of the head of a pin was found. In the other case there was an area of softening, but it was not tuberculous. A later pathological report was never had. In a number of cases the hemorrhage, after continuing for a certain period, spontaneously stopped. In one case there had been bleeding for six years. The patient was told that if this did not stop within a short time we would have to operate upon him. Within three days after this announcement the hemorrhage stopped, and he has not had any since. This was more than two years ago. In one case in which there was pronounced nephritis the hemorrhage was present only on one side. One notable and rather interesting fact in hematuria is that a large per cent. are painless. The first thing noticed is blood in the urine, and there is no pain unless there is clotting, but in 85 per cent. of the cases there is a definite pathological lesion responsible for the hematuria. I have seen hematuria in pregnancy, typhoid fever and several cases of pyelitis. I think all cases of hematuria should be thoroughly investigated for the cause, for in a number of cases it may be the first symptom of beginning malignancy or some other grave lesion.

Dr. Hitchings: It seems to me that there is some possibility of these cases being successfully treated before they get into the surgeon's hands. I have closely followed the work of Weil, of Paris, in controlling pathologic hemorrhage of various kinds by injecting the fresh serum from man, horse or rabbit in patients suffering from pathologic hemorrhage. Cases of hemophilia and purpura which have failed to respond to all the ordinary hemostatics have been controlled completely by this simple means. The serum must be comparatively fresh—cannot be over six days old in order to obtain results. In cases of apparently essential hematuria where no definite lesion can be discovered, it might be advisable to see what effect injections of this kind would produce. Weil has had no cases of hemolysis as far as I have been able to ascertain.

Dr. Bunts: In regard to Dr. Lower's remarks, of course a large percentage of hemorrhage of the kidney must come from lesions really demonstrable. These seventy cases which I have collected are cases where such lesions were not present. The kidney was cut

down upon and no stone found in any of them, and in only one case was tuberculosis deemed to be present. There is no question but some very small lesion of the kidney is sufficient. Abbe reports such a case, where the incrustation of a small piece of gravel seemed to be responsible.

In regard to Dr. Hitchings' remarks, I have been very much interested in this matter of serum injection. I have not used it in any of my own cases, but have advised it in one case of consultation in a case of hemophilia, and the hemorrhage ceased. Whether that was what stopped it I cannot say. The man had been bleeding for four or five days. I think it is well worth trying.

The thirty-ninth regular meeting of the Experimental Medicine Section was held Friday, May 1, at the Cleveland Medical Library, C. A. Hamann in the chair. The program was as follows:

"Cellular Osmosis and Heredity," by A. B. Macallum, professor of physiology and physiological chemistry, University of Toronto.

Professor Macallum defined the attitude he was to take in this address as discussing in the questioning spirit the validity of the application of two of the doctrines of physical chemistry to physiologic phenomena of osmosis. One doctrine was that in solution the substance dissolved is in such a condition that its molecules are separated from each other as they would be if such substances were in a gaseous condition occupying the same volume as the solution and that, in such solutions, illustrates all the gas laws. The other doctrine, associated with the first and indeed inseparable from it, was that of the semipermeable membrane.

The concept of a semipermeable membrane was then stated and reference was made to the work of Moritz Traube, who in 1865 began the study of what are now known as precipitation membranes. The method was then described by which such a precipitation membrane of cupric ferrocyanid was formed at the surface of contact between solutions of cupric acetate and potassium ferrocyanid. It was pointed out that osmosis of the water took place through this membrane but that neither of the salts would pass through it. Pfeffer's modification of this work by employing porous pots as a mechanical support for these precipitation membranes was then reviewed and reference was made to some of his striking observations upon osmotic pressure, such, for instance, as the fact that osmotic pressure

is dependent upon the strength of the solutions, being almost proportional to the concentration in the case of organic solutes like cane-sugar and dextrose and also in proportion to the rise of temperature, but in the case of salts the results were not so constant. The explanation of these results by Van Hoff embodies the now well known theory of gas nature of solutions which is accepted widely as a cardinal principle of physical chemistry. Allusion was made to Pfeffer's belief that the unpermeability of such a membrane as the wall of a living cell depended upon the size of the molecules of the substance held back by it. It so happened that the water molecule was smaller than any of the solute molecules with which he worked and his deductions were only natural. In fact, it is doubtful if physical chemistry would ever have included the concept of the semipermeable membrane were it not for the difficulty experienced by botanists and physiologists in accounting for the capacity of living cells to retain their organic constituents.

The behavior of a membrane of palladium at a temperature of 200° C. in allowing the diffusion through it of hydrogen while it is impermeable to such other gases as CO, CO₂ and N demonstrates that such a membrane does not agree with the sieve theory of a semipermeable membrane since the molecules of these different gases are of the same size. The correct explanation of the phenomenon is that hydrogen is soluble in the palladium while the other gases are not.

Even when dealing with precipitation, membranes the sieve theory must be abandoned as shown by the greater permeability, under mechanical pressure, of the copper ferrocyanid membrane to the larger molecules of alcohol than to the smaller molecules of water. Also by the fact that when a gutta percha membrane separated pure alcohol and pure water the alcohol passed through to the water, the reverse of what happens when a copper ferrocyanid membrane is used.

Pringsheim, by carrying the method of forming the precipitated membrane, showed that it was not the size of the molecules which determines whether they shall go through the membrane; it is rather more or less the affinity of the dissolved substances for the substance constituting the membrane that is the deciding factor. Reference was made to the behavior of various solutions to other mem-

branes such as pig's bladder, as used by Nernst, and rubber membranes by Raoult and Flusin. All these results distinctly point to an action on the part of the membrane which is not postulated in the semipermeable membrane of Pfeffer and Van Hoff. The difficulty of accounting for some of the phenomena of osmosis on the postulates of a semipermeable membrane and the gaseous condition of the solute has led a number of physicists and physiologists to reject both as quite inadequate and unsatisfactory. Traube explains all the phenomena of osmosis as due to difference in surface tensions on opposite sides of the septum, the difference determining the direction and velocity of the osmotic current, the direction being toward the liquid having the greatest surface tension. A somewhat parallel view is also held by Battelli and Stephanini. That surface tension does play a considerable part in osmosis is shown by some elementary facts in some solutions, for instance the increased concentration of a solution of salt in contact with the wall of the containing vessel, upon the walls of a capillary tube or upon the fibres of a filter. Surface tension, however, is not a factor sufficient to explain all the phenomena of osmosis and especially those manifested in cellular absorption and effusion. It will not explain the absorption of colloids in the intestines, the passage of fats and proteins through the endothelial lining of capillaries and the diffusion through living membranes of material which is not in solution but rather in suspension as colloids. The difficulty of explaining these has led to a revival of the doctrine of vitalism as a distinct force concerned in the exchange of material through the septa formed by living cells. It does not, however, seem justifiable as yet to adopt this attitude.

Overton's work upon the velocity with which chemical compounds diffused into living cells was next reviewed. He believed that certain lipid bodies in cells are the cause of the diffusion into the latter of various lipid-soluble substances. That lipid material does obtain in cell membranes seems to be indicated by the results of intra vitam staining. A remarkable fact is that all the principal narcotics, anesthetics and anti-pyretics are rapidly diffusing substances, as was also pointed out by Hans Meyer, and both he and Overton hold that the efficacy of a narcotic depends upon its solubility in lipoids. Various criticisms of Overton's theory by Traube and

Moore were then discussed and reference was made to the explanation offered by Nathanson's modification of Overton's theory which postulates that the membrane is a composite or mosaic structure in which a portion of the component elements consists of unswellable cholesterolin and the remainder of protoplasmic material which has the properties of a typical semipermeable membrane. While this may occur in the case of red blood-cells the assumption of a mosaic structure merely complicates matters and illustrates the inadequacy of Overton's theory.

Kahlenberg's researches show that the distinctions between colloids and crystalloids, held valid since Graham's time, require modification. A substance acting as a colloid to water is not necessarily a colloid to every solvent. Also that in organic colloid suspensions there are two phases: a solid-water phase constituting the ultramicroscopic suspension particles, and the water-solid phase forming a true solution, so that it is not correct to speak of colloids as wholly suspensions. The fallacy of employing one kind of membrane as a means of distinction between suspensions and solutions was emphasized and also that we must discard all the concepts we have gained from the results obtained with an ordinary dialyzer of parchment. It must be postulated that the reason why substances which are concerned in the vital process circulate and diffuse into tissue elements is that the physiologic fluids, extracellular as well as intracellular, are so composed as to dissolve them.

Kahlenberg found that by employing pure rubber septa and various fluids as solvents that certain colloids would pass through the membrane while certain crystalloids would not do so. He was also able to separate two crystalloids from each other by osmosis and even to separate two colloids by the same process. These observations show that the membrane is not a passive element in osmosis and that the view that crystalloids always pass through membranes more readily than colloids is untenable, as just the opposite may occur. Whether substances can be separated by dialysis does not depend at all on their crystalline or non-crystalline nature, as is so commonly supposed, but upon their affinity for the septum employed. Osmosis is therefore due to the solvent activity of the membrane whatever its nature. The composition of the membrane

and the solubility in that membrane of the solutes on either side of it are all important factors in determining whether osmosis shall obtain.

Professor Macallum then referred to his own investigations upon the microchemistry of the cell. He recalled the fact that caseinogen and egg albumen will be absorbed through the colloidal mucous membrane of the intestine and be excreted through the colloidal epithelium of Bowman's capsule in the kidney, also that fat can pass through an animal membrane into cells. The only explanation possible is that the membranes are of such a composition that they dissolve the water-solid phase of the colloids and pass them through to the other side. He went on to show that diffusion of colloid through colloid was shown in cells themselves, as in the passage of fat dissolved in colloidal substance through the epithelial cells and the adenoid network of the intestinal villus to the lacteal vessel. In developing nerve cells the chromatin diffuses out through the membrane of the nucleus to form the substance of the Nissl granules. The formation of paranucleoproteid of the yolk spherules from the chromatin of the nucleus of the ovarian ova of amphibia presents the same phenomenon. Other instances were also given showing that membranes in, and the protoplasm of, the living cell are capable of allowing colloids to diffuse through them and that living animal membranes do not necessarily distinguish between crystalloids and colloids. From his own studies he had determined that the nucleus is absolutely free from chlorids and phosphates and from sodium, potassium, calcium, and magnesium and that the nuclei of intestinal cells absorbing inorganic iron failed to show any of the inorganic iron while the cytoplasm of the cell may be subcharged with it, and he therefore concludes that the normal cell nucleus does not know the inorganic world, that it is the home of certain organic compounds only. The nucleus actively excludes inorganic salts, the nuclear membrane being the only structure so constituted as to exclude them. Hamburger has also noted this impermeability of the nuclear membrane. Certain organic compounds are also absent from the normal nucleus, such as fats, glycogen, free sugar, and probably free proteids like globulins and albumins.

The nucleus contains chiefly an iron-holding nucleoproteid which the histologist calls chro-

matin and which differs for different kinds of cells, although all are alike in the main in their composition. These compounds are synthesized in the cytoplasm, the synthesis of nucleic acid first occurring and this uniting with proteid to form the nucleoproteid, which in turn readily passes through the nuclear membrane into the nucleus. That the nucleoproteid can also pass out from the nucleus has been shown by the formation of Nissl granules in the developing nerve cells and the formation of prozymogen in the cytoplasm of secreting cells, due to the diffusion of a chromatin-like substance from the nucleus.

The permeability of the nuclear membrane by the iron-holding nucleoproteids is probably due to a degree of solubility of the latter in the substance of the membrane. The retention of the nucleoproteids by the nucleus is probably due to their entering the latter in the water-solid phase or hydrophilous form and then assuming the solid-water phase which is a less diffusible form as is shown by its constituting the chromatin masses. We can only speculate upon what produces this change from one phase to the other, although it would seem that the nuclear membrane brings it about. The important conclusions to be drawn are that iron-holding nucleoproteids so long as they remain in the interior of the nucleus are protected from chemical alteration due to the action of inorganic and other compounds which may invade the cytoplasm. Another is that this is the true function of the nucleus.

These two conclusions based on the composition and the properties of the nuclear membrane enable us to comprehend clearly what constitutes the physical basis of heredity.

The theory of Darwin upon heredity was then reviewed, that typifying "gemmules" from every cell in the body collect in the ovum and spermatozoon to reproduce in the offspring the features of both parents. The objection was made to it that it is impossible to conceive of such gemmules being accommodated in an ovum or spermatozoon. Reference was made to Weismann's theory that the transmission of a "germ-plasma" in the germ cell of the parent to the offspring accounts for the inheritance of ancestral characters. This germ-plasma is not affected by metabolic or other changes in the tissues of the individual but may spontaneously vary and thus give rise to varieties in the offspring of the species.

The true explanation was thought by Pro-

fessor Macallum to lie between these two theories. He believes that the germ-plasma consists of nucleoproteids of certain definite fixed composition which are sorted out by the nuclear membrane and stored up in the nucleus, safely protected from the varied chemical changes that might affect them in the cytoplasm, and that these compounds are the factors in transmitting the inherited parental characters, slight variations in the composition of the nucleoproteids permitting of variations in the offspring, while providing for transmission of the general characteristics.

The nuclear membrane therefore makes this transmission of parental characteristics from generation to generation possible. And change that would give rise to variations in the species must arise through a germ-plasma being altered in composition but to such a slight extent that it still is soluble in the nuclear membrane and therefore penetrates to the nuclear cavity and in consequence the offspring of the next generation would be somewhat different. Thus, without a nucleus there could be no fixity of type or of character. This constitutes the reason why the species of nucleated organisms vastly outnumber the non-nucleated, although originally all were without nuclei. The differentiation of the nucleus was the first step in a higher evolution and then came the differentiation into sex, which still further promoted this function.

The importance, therefore, of having a clear view of what osmosis fundamentally means is manifest. Through a form of it the cell nucleus, which knows not the inorganic world and which knows neither fat nor free carbohydrates, is the sacred receptacle for the heredity-bearing substance, the germ-plasma, alone. Through this osmosis and the structure concerned, the nuclear membrane, we see what an all important part a simply physical property of matter rightly understood plays and has played in the progressive evolution of living forms on our planet.

W. T. Howard, in discussing the paper, said that he felt sure that he voiced the sentiments of all who are present when he said that they were greatly indebted to Prof. Macallum for his most interesting address. To those who were familiar in a general way with his work, this exposition and elaboration of his views had been particularly instructive. Those who were interested in cell studies would appreciate the great advantage Prof. Macallum had

in being at the same time a morphologist and a physical chemist, unfortunately a very rare combination. He would not attempt to discuss the paper in detail, but would confine himself to a few points and would ask a few questions. The keynote of the paper, as he understood it, was the application of Kahlenberg's theory of the selective solubility of membranes to the theory of heredity, and Prof. Macallum had certainly brought forward a number of arguments in support of his position.

He was glad to hear him state his belief in the existence of a nuclear membrane, for some physiologists and morphologists deny its existence, a position which to him, in the light of Morcas' experiments upon the nuclei of actinosphaerium Eichorni and certain egg cells seemed too sweeping. He could not agree with Prof. Macallum that bacteria and yeast cells are without nuclei. It seemed certain from the work of Schaudinn and others that bacteria are possessed of nuclear material in the form of a chromidial network which, under certain conditions, may gather together in one or more masses with the appearance of morphologic nuclei. The same is probably true of yeasts.

He was particularly interested in chromidia, —the presence in the protoplasm of extranuclear nuclear material derived from the nucleus—and he was glad to hear that the speaker regarded the Nissl granules of ganglia cells as chromidia.

In closing, he wished to ask Prof. Macallum two questions: first, what did he believe the structure of the nuclear membrane to be? and second, what changes does it undergo to allow the passage of nuclear material from the nucleus to the protoplasm? These were questions of great importance. The nuclear membrane here is certainly capable of selective action, for in some secreting cells chromatin combined with plastin exudes from the nucleus, e. g., in the pancreas cell and in other cells, plastin alone comes out, as in certain mucus secreting cells.

In reply, Prof. Macallum said that anyone who has examined fresh cells under the microscope under the most natural conditions would hardly be a doubting Thomas as to the existence of a nuclear membrane. The membrane itself is distinct enough. As was stated at the beginning, it is always well to review concepts and see whether they are well founded or not. Perhaps the question may

arouse someone to study the constitution of the nuclear membrane, if not to establish beyond cavil its existence. The structure of the membrane has not been studied very carefully; it is a difficult problem. Carnoy was the first to call attention to some of its peculiarities. It was previously taken for granted that there was such a membrane, but before his day its construction was not analyzed. He came to the conclusion, after treating a number of nuclei with reagents, that it consisted of a network in which one can see the trabeculae forming a meshwork. Personally he was unable to accept this view.

That such a membrane can be altered very readily indeed, is shown by the fact that one can alter the composition of the external membrane of the red blood corpuscle. This membrane is such as to prevent the hemoglobin and salts contained in the corpuscle from diffusing out. A simple reagent like distilled water may alter the membrane. That it is homogeneous seemed to him to be the case, but what its composition is we do not know. Anyone who will study its properties will at once see that it performs a function which an ordinary dialyzing membrane, "semipermeable" or otherwise, does not manifest.

In regard to the exact composition of the Nissl material, he was not prepared to say; it is probably slightly altered chromatin. There have been apparently no observations on this point except those from his own laboratory. There is, however, no doubt that the Nissl granule material is derived from the chromatin of the nerve cell nucleus.

A vote of thanks to Prof. Macallum was then unanimously passed.

FIFTH DISTRICT

The Erie County Medical Society met April 22, at the court house. The library committee reported arrangements made with the trustees of the Carnegie Library for housing the proposed medical library.

An interesting program was carried out. M. J. Love, of Bloomingville, read a paper upon "Pleurisy, Diagnosis and Treatment." He dealt especially with the acute symptoms of pleurisy, and treatment by means of rest and fixation of the chest wall.

J. F. Bausch read a paper on "Treatment of Pneumonia," in which he said: In many cases pneumonia is an auto-intoxication, as the pneumococcus is present in the secretions of the

mouth and throat. The use of antiseptic mouth washes when the resistance is somewhat lowered may avert an attack of pneumonia.

The disease being self limited, the drug treatment is symptomatic. Dover's powders are given to relieve pain, and elimination by skin, kidneys, and bowel is secured. Support of the circulation is of the greatest importance. The temperature can be controlled by cold sponging and ice cap on the head. The coal tar products are dangerous. Digitalis, strychnine, camphor and caffeine are indicated at times. Saine infusions are often useful when circulation is depressed. When fresh air is obtainable oxygen is not needed.

In plethoric individuals bleeding may be indicated, but veratrum or aconite will relax the mesenteric vessels so as to relieve the congested lungs. After consolidation takes place cardiac depressants are not indicated.

Expectorants are useless to relieve the pneumonic process, but do help to loosen the secretions. Ammonium chloride and ammonium carbonate are useful. Syrup of hydriodic acid has the beneficial effect of the iodides. Convalescence is usually tedious.

J. T. Haynes read a paper on "Haemoptysis." The first essential is as near absolute rest in the recumbent position as can be secured. In mild cases this is sufficient to control the hemorrhage. The use of the ice pack or ice bag is important as it will control the hemorrhage unless it is immediately fatal. This application of cold should be continued for at least a week, at the end of which time it will be difficult to make out much trouble by the stethoscope.

The patient should eat crushed ice and large quantities of common salt at this time.

As a sedative for the heart, the ice bag over the precordia reduces the rapidity of the heart's action, though if the pulse be full and strong, aconite and other arterial sedatives can be used.

Dry cupping is of little value. The patient should abstain from all stimulating diet, and physical and mental strain should be avoided as well as anything likely to induce coughing.

The Erie County Medical Society met in regular session at the courthouse on May 27. The program was upon surgical subjects, "The Treatment of Fractures," by Charles Graefe, occupying most of the time.

"The use of the X-ray is of service in diagnosing some fractures, but most of them can be diagnosed without it. Crepitation and motility are the principal signs of fracture. When there is impaction, let it alone, as it is not infrequent. In the neck of the femur it is important not to break up an impaction.

"In old people immobilization of a fracture involving long periods of inactivity is disastrous to their health. Simple splints are the best for the first treatment; then, after the swelling has subsided, plaster can be applied. But the final setting and application of plaster should wait for a few days. Try to get apposition, restore function, overcome atrophy and stiffness."

In the discussion J. T. Haynes said: To diagnose fracture of the ribs, stand the patient against the wall, and quick pressure against the sternum will bring out the seat of pain and of the fracture.

Application of plaster should be delayed until the second or third week. In Colles' fracture the fingers should be liberated so that they can be worked, in order to avoid a stiff hand.

Dr. Storey gave a report from the state convention.

The Ashtabula County Medical Society held its regular monthly meeting Tuesday evening, June 12.

J. J. Hogan, of Ashtabula, gave an able paper on "Therapeutics," which was discussed by Dr. Palmer, of Geneva.

An arrangement was made for the annual outing in August, at East Lake Park, and Dr. Tower, of Conneaut, Dr. Hogan, of Ashtabula, and Dr. Palmer, of Geneva, were appointed by the president to act as a committee to prepare a program.

Dr. Hogan presented a very interesting clinical case of exophthalmic goiter.

SIXTH DISTRICT

The Ashland County Medical Society met in regular session at Loudonville Tuesday, May 12, with a splendid attendance of members. Visitors present were Dr. Reinhart, of Toledo; John L. Stevens, of Mansfield; Dr. Elder, of Nashville; Drs. Hiatt and Reid, of Jelloway, and Drs. Schwartz and Lingenfelter, of Loudonville.

C. B. Scott presented a case of neurotic urticaria of three months' standing, which was very interesting and which was due to fright.

O. J. Powell read a paper on "Burns," dividing the lesions into first, second, third and fourth degrees, giving the history and treatment for each condition and advocating the open air treatment for certain degrees of lesions.

C. B. Scott opened the discussion and was followed by Drs. Reinhart, Stevens, Wirt, Schwartz and Emery and was closed by Dr. Powell.

J. L. Stevens, of Mansfield, read a paper on "Intestinal Sutures," giving the surgical history and procedure up to date. He also gave a history of a case of strangulated hernia, in which two feet of gut were removed and closed with a Murphy button. This was passed in four weeks, with perfect recovery. Light attacks of diarrhea followed overeating, while before there had been obstinate constipation. Discussed by Drs. Reinhart, Powell, Elder, Burnett, Scott and Wirt and closed by Dr. Stevens.

A. W. Budd gave a history of forty cases of smallpox, twenty of which occurred in five families. Dr. Budd's history showed most of those recorded as of a mild type, and if it were not for the occasional severe form cropping out in the course of an epidemic they might be mistaken for certain forms of skin disease. He also thought it might be a good thing if physicians would occasionally run up against the real thing; there might be fewer cases of Cuban itch and chicken pox in adults. Dr. Burnett opened the discussion and spoke along the line of prophylaxis. He was followed by Drs. Scott, Fuller, Emery, Powell, Elder and Wirt and closed by Dr. Budd.

Following a splendid banquet given by the Loudonville members to those present, J. J. Lingenfelter was elected to membership.

The next meeting will be at Ashland.

EIGHTH DISTRICT

The Morgan County Medical Society met in regular session April 30 and elected the following officers: J. E. Brown, president; W. R. Kelley, vice-president; W. D. Mercer, treasurer; W. C. Leeper, secretary; board of censors, J. F. Leeper, W. R. Kelley, T. J. Bingham.

The subject of county organization brought out considerable discussion. It was finally determined to adopt new articles of agreement; also a fee bill and an "information list." This being done, it was voted that on and after June 16, 1908, any practicing physician residing within the limits of Morgan county refusing to be-

come a member of the Morgan County Medical Society should be deemed not in good standing, and members of the society were instructed to refuse to render medical or surgical assistance to said physicians until they should become members. While this may be drastic action, yet it seems advisable in order to make the Morgan County Medical Society second to none in the state. This action has seemingly created some impression upon those in opposition to the society, as favorable comments have been received. We expect to have a full membership by June 16.

The secretary was instructed to notify the various secretaries of the Eighth District and Franklin county, that they in turn may notify their members of this county's action.

The meeting adjourned to meet May 27, at which meeting minor business was transacted.

At the last meeting of the Morgan County Medical Society, June 16 was selected as the day for the annual banquet and the completion of the reorganization. Twenty physicians responded to the roll call. James Davis and L. P. Culver were elected honorary members. This leaves Morgan county with only six practicing physicians that are not members of the society.

W. E. Wright, of Newark, discussed organization, and E. C. Brush read an interesting paper on appendicitis. In the evening a banquet was given to the physicians of Morgan county by their wives. All in all, the meeting was one of the most satisfactory held in a number of years.

The June meeting of the Muskingum County Medical Society was held in the society's rooms at Zanesville, Wednesday evening, June 10. Paper of the evening, "Proprietary Medicine," by C. P. Sellers; paper, "Proprietaries From Druggists' Point of View," Christopher Koch, Jr.

The Licking County Medical Society enjoyed the following program May 5:

"What Are Our Best Therapeutic Remedies?" J. P. H. Stedem; "Our Most Common Skin Diseases," H. J. Davis; "Indolent Ulcers of Leg: Pathology and Treatment," G. W. Garrison, Utica; "Hemorrhoids: Pathology and Palliative Treatment," U. K. Essington.

NINTH DISTRICT

The Pike County Medical Society met in regular session June 1. E. M. Dixon read a very interesting paper on "Diabetes Mellitus."

TENTH DISTRICT

The Columbus Academy of Medicine met on June 15 and devoted the evening to case reports. W. D. Deuschle presented the following:

Case 1. Central Blindness.—A man seventy-one years of age. Family history of no importance relative to case. Patient denied syphilis. Was a soldier in War of the Rebellion. Had measles during service in 1863. Suffered constant occipital headache since that date. Failing sight since 1863, until 1886, when he became totally blind, except that on very bright days he can distinguish light. Wears dark glasses (goggles) because of lachrymation on exposure to light. Lids normal except old chalazion in right upper. General condition of eyes good. Cornea clear. Irides apparently normal. Pupils normal; respond perfectly. Intense light causes no flinching, though pupils respond promptly. Blow of fist toward eyes causes no flinching. Ophthalmoscopic examination reveals practically normal disc. No extraocular palsies. Pulse 96; temperature 99.8. Knee reflexes normal. Babinski reflex absent. Dynamometer test: Right, 90; left, 85. Sensation normal.

Diagnosis.—Central blindness, resulting from chronic pachymeningitis interna hemorrhagica. Degeneration in region of and including calcarine fissures.

Cases 2, 3 and 4. Spastic paralysis in childhood, occurring in three children in a family of six, symptoms beginning at the age of six years in each instance. These children were apparently normal in every respect until this age.

In the oldest child, age ten, the spastic paralysis of legs and arms was followed by loss of sight and power of speech and difficult deglutition.

In the next child, age eight, the power of speech is becoming affected and evidences of diminution of vision manifest.

The youngest child, age six, shows a spastic paralysis in lower extremities, the mode of onset and character being the same as in the two older children.

The symptoms indicate a defective development of the cellular elements of the entire cortex. Limited vitality and degeneration.

Case 5. Ophthalmoplegic Migraine.—Patient forty-nine years old. Family history of no importance. Passed menopause six years ago.

Personal history: Has one child and has had no miscarriages. Has always enjoyed good health, excepting she has suffered from so called attacks of "bilious headache" at intervals of two weeks for some years past. The description of these attacks of headache are those of a typical migraine.

January, 1907, following an attack of unilateral headache, which was not accompanied by nausea and vomiting, as was previously the case, a paralysis of the third nerve followed. There was ptosis of the left eyelid, double vision, pupil in left eye dilated and unresponsive to light and accommodation. Other eye muscles supplied by the third nerve were completely paralyzed. The fourth and sixth were not involved. Ophthalmoscopic examination revealed a normal eye ground. No other cranial nerves were involved. There was no vertigo and no disturbances of leg and arm of the left side. The knee reflexes were slightly exaggerated. There was no ankle-clonus.

The patient, after two months' treatment, showed a decided change for the better, and at this date has practically recovered the function of the third nerve.

Case 6. Occupation neurosis, followed by epileptoid seizures. Patient seventy years old. He has followed the occupation of shoemaker since the age of thirteen years. Family history negative.

Personal history: Has used tobacco since ten years of age and probably to excess. He has consumed alcohol in moderate quantities; none since January 8, 1907. There is no luetic history. For nearly two years previous to August, 1907, at time I saw him, has noticed an inability when at his work to strike a nail with the hammer. In his efforts to do so the hammer has gone wide of the place intended. There has been noticed also a gradual decrease in strength of the right arm, attended with pains. In attempts at sewing, he has also noticed a difficulty in adjusting the needle at proper place. There has, in other words, been an inability to co-ordinate muscles necessary for the proper demands of his trade. Weakness in the arm has progressively increased, and when in use there have been spasmodic contractions of the muscles of both arm and forearm, together with tremor. Paresthesias have been present and are still noticeable, par-

ticularly in the fingers and hand of the right side.

Examination reveals no atrophy of the muscles of the arm affected. He is right-handed, but the dynamometer test of the right is considerably less than the left. He complains of pains radiating from the shoulder, including the arm and forearm. The right leg, which was used in operating a machine, was for a time affected with weakness and a similar inability to execute proper movements necessary for his work. This, however, has disappeared to a great extent. Babinski sign is absent, and there is no ankle-clonus. Patellar and Achilles reflexes are both sluggish. There are no pupillary disturbances. Pupils are responsive to light and accommodation. There are no extra ocular palsies. There has been no disturbance of the sphincters of the bladder and rectum. There is absence of girdle pain, and there are no anesthetic areas.

Since January, 1907, at intervals of about two weeks, he has had a number of attacks of clonic spasms of the right arm and leg, the spasms beginning in the arm. On two occasions there was a complete lapse of consciousness during these attacks. Usually there is, however, a mental confusion or haziness that accompanies and follows these paroxysms.

E. E. Gaver presented the following case of hemiplegia:

Male, aged eighty, who was suddenly stricken with a complete hemiplegia of the right side on May 15 and died June 15, necropsy being done a day later. The right side of face was involved, there being ptosis and fairly rigid equal pupils but little dilated. There was no deviation. The paralysis was complete and flaccid throughout. A slight rigidity came on the third day after the onset. Consciousness was not disturbed at any time. There were no convulsions. The paralyzed side was hyper-sensitive. No vomiting. Temperature dropped slightly at first, with a later gradual rise. No noticeable disturbance of respiration—Cheyne Stokes' absent at all times.

A disturbance of the speech is one of the most important symptoms. There was not complete loss of power of speech, but only a difficulty.

Diagnosis.—The diagnosis not only forces a consideration of the location of the lesion producing the above array of symptoms, but the nature and extent of the lesion as well. The case would be notably absent of any focal

symptoms were it not for the difficulty of speech, and this symptom alone cannot be definitely localizing more than to guarantee the lesion to be on the left side. So, in view of the absence of definite localizing symptoms, it seems the most advisable method of diagnosis would be by exclusion.

Before cutting the brain it is obvious that meningeal or cortical lesion are to be excluded. Other lesions to be considered are those of the ventricles, the corona radiatum and the mesencephalon.

Absence of characteristic cranial nerve involvement, no bilateral signs, no vomiting and a few other minor signs seem evidence enough that the trouble does not arise in the mesencephalon.

We can exclude, I think, ventricular hemorrhage, as such a lesion would probably have produced death in a much shorter time, this case having lived thirty days. Absence of coma, convulsions and contractures, together with clear consciousness throughout, would largely aid in the exclusion of the ventricular hemorrhage. The lesion is probably not in the corona radiata or sub-cortex, because a lesion here large enough to produce such an extensive paralysis would probably be accompanied by other graver signs, such as convulsions, vomiting and evidences of pressure and irritation.

With the exclusion of these lesions we are largely enabled, together with the nature of the paralysis and the other signs, to place the seat of the lesion in the internal capsule or its closely adjacent structures, which would present about the same array of symptoms.

Now, as to the nature of the lesion we are about to search for, and which is an important thing to determine. I may say there are three conditions to consider—namely, embolism, thrombosis and hemorrhage. The age of the patient, the absence of any previous acute illness, especially cardiac disease, and the presence of premonitory symptoms, and the sudden extensive complete paralysis all strengthen the improbability of softening from embolism.

In reviewing the clinical signs we find a greater number of evidences of thrombotic softening than of hemorrhage; however, there is at least one remaining sign so pronounced that it seems to me sufficient to place the evidence of greatest weight in favor of a hemorrhage, and this sign was the very sudden onset of such a complete flaccid paralysis. I

saw the case immediately after the onset and found this true.

The brain was demonstrated and a hemorrhage found, the cross section of which was quite circular and about one-half inch in diameter. It was located in the posterior portion of the lenticular nucleus and in such a position as to impair the capsule to a marked degree and also was impinging upon the fasciculus uncinatus, which fact might have accounted for the disturbance of speech.

W. J. Means presented a mesenteric tumor the size of an orange, the shell of which had undergone calcareous degeneration. The cyst contained a colloid substance. The history was as follows: Female; aged thirty-two; married; well nourished and the mother of two children. She was referred by Dr. Sherman, of Maxville, because of right-sided abdominal pain and digestive disturbances of two years' duration. For the past year she has been suffering from an annoying cystitis, which at present is almost unbearable. The urine is passed at intervals of one hour or less and is followed by extreme pain and tenesmus. She has had a profuse leucorrhea.

Vaginally, the cervix was found lacerated and extensively eroded. Palpation of the bladder through the anterior vaginal wall excited pain. The cystoscope showed the mucous membrane to be inflamed and eroded in several places. The uretral openings looked normal, and there was no discharge of pus from the kidneys. The urine contained a trace of albumin, pus cells and bladder epithelia. There were no casts.

Examination of the abdomen revealed a tumor the size of an orange. It was mobile and seemed to rest in the right side opposite the umbilicus, but could be pushed into the right kidney region without difficulty. The consistency was too hard for a kidney. This, with the apparent fixation of the mass in the umbilical region, led me to believe it was a mesenteric tumor. Several prominent physicians had diagnosed a floating kidney and had connected the cystitis with a disease of this organ.

The patient was operated upon June 5. The uterus was curetted, and, after correcting the cervical laceration, the abdomen was opened along the line of the right semilunaris opposite the navel. The tumor was located in the mesentery of the ileum. It was removed by dissecting it from the free attachments, which were closely adherent. The mesenteric veins

which were necessarily torn were carefully ligated. The lymph nodes in the immediate position of the tumor were enlarged and soft, but differed entirely in general appearance and feeling from the tumor removed.

Dr. Scott examined the specimen and stated that the shell of the tumor was composed of a bony-like substance. Under acid treatment the inorganic salts were dissolved, leaving a stroma of fibrous tissue. The shell contained a yellow, oily looking fluid. The bacterial examination was negative. The probabilities are that the tumor represents a tuberculous lymph node. It is scarcely necessary to say that the bladder trouble had no connection with the tumor. However, it probably caused the intestinal disturbances of which she complained. The patient recovered.

Two caeca, removed post-mortem, were next presented as interesting in determining the results of inversion of the appendix.

Specimen No. 1.—The patient died from cancer of the uterus. She was operated upon three years ago by a prominent surgeon for disease of the pelvic organs, at which time the appendix was disposed of by inversion. The specimen shows the appendix in its entirety, but inside out. There is no atrophy or degeneration of any portion of the appendage. Evidently the blood supply was not cut off at the time of the inversion or there would have been some degenerative changes.

Specimen No. 2.—This was removed from a patient who died from enteric fever. The autopsy revealed an inverted appendix, as shown by the specimen. One of the findings was an ulcer near the tip of the appendix. We have no history giving the date of operation in this case. Both specimens were found by Dr. Scott within a period of two weeks.

These specimens are presented to the academy for the purpose of demonstrating that inversion of the appendix does not always relieve the patient of this organ.

Advocates of the inversion method of dealing with the appendix contend that the organ will slough when inverted because the blood supply is destroyed. This contention is evidently not true in all cases. The proportion of cases in which the appendix does not slough cannot, for obvious reasons, be determined.

We have no history of the cases reported as to the intestinal disturbances. The effect, therefore, of a free appendix in the cecum is only problematical. The presumption is that

it might act as a foreign body and give rise to disturbance. The danger of invagination of the cecum following inversion has been mentioned by certain writers. Specimen No. 1 shows a depression at the point of disappearance of the appendix, and suggests the possibility of such a complication.

In the discussion, Fred Fletcher said that it was of practical importance to know that mesenteric tumors were usually median; that they were near the navel and anterior abdominal wall; especially movable in a lateral direction, and entirely surrounded by a tympanitic zone. He was of the opinion that the cyst presented represented a tuberculosis lymph node, and especially so since adjacent glands were involved. Dr. Fletcher had examined the caeca containing the inverted appendices, and was of the opinion that the appendix in Specimen No. 1 had failed to slough because the appendicular artery was subperitoneal (absent meso-appendix), and had not been ligated. Specimen No. 2 still shows a very broad cecal attachment of the meso-appendix, and the probabilities were that the artery had not been ligated back to the cecum. He practises inversion of the appendix in suitable cases, and believes that when the proper technique is carried out, it is anatomically impossible, even with an anomalous blood supply, for the appendix not to slough.

Dr. Baldwin suggested the inflation of the colon as a valuable means of differentiating kidney lesions from other intra-abdominal tumors.

Dr. Baldwin said that he had inverted several thousand appendices, and that he still used the method, though less frequently, than formerly, in selected cases. He believes that the blood supply is entirely controlled when the meso-appendix is ligated; the base of the appendix freed of its serous coat, and the point of invagination (cecum) closed with a purse string suture.

C. A. Howell stated that in a large per cent. of cases the blood supply of the appendix was so distributed that even if the technique of the operation was closely followed as laid down by the originator, sloughing would not ensue. The risks of complete removal were much less in his opinion than inversion. The danger of intussusception is a real one, and he thought the procedure of inverting the appendix to be unsurgical, and should be discarded.

E. A. Hamilton agreed with and indorsed the remarks of the preceding speaker, and believed that from anatomical reasons the appendix fails to slough in many cases, and is a source of danger.

In closing the discussion, Dr. Means said that some of the speakers had suggested that the blood supply could be readily cut off by exposing the muscular coat at the base of the appendix and ligating the appendicular artery. An anomalous arrangement of the vascular supply might, however, continue to furnish nourishment to at least a portion of the appendix even after the ligation of the appendicular artery. Whether this explanation accounts for the life of the appendices shown in the specimens presented, is scarcely determinable. On general principles it would seem that the ligation of the appendicular artery would at least destroy the vascular supply to the distal part of the appendix, and that atrophy or sloughing would occur. The specimens show no atrophy or degeneration of the free end.

His greatest objection to inversion was based on the hypothesis that the organ sloughed, and that there followed in a certain per cent. of the inverted cases, a septic condition--sapremia.

Some two years ago he lost a patient following hysterectomy in which he inverted a large appendix. The patient did well for almost two weeks, when she developed the signs of a profound sapremic intoxication. The general symptoms, together with an offensive discharge from the bowel, led him to hold the appendix responsible; he could not verify diagnosis by autopsy, but his convictions were so strong that he has not since inverted an appendix. Whether the appendix sloughs or remains alive as a foreign body in the cecum, it matters not. The conditions are not desirable in either event, and led him to the conviction that inversion is not a desirable method of disposing of the appendix.

J. F. Baldwin reported the following cases, with specimens:

(1) Splenectomy for twisted pedicle. Patient was a young married woman with one child. Had had trouble in the left side for some time, the disturbance here having been looked upon by her physicians as due to a floating kidney. The symptoms of the twisting of the pedicle came on suddenly; were those of shock, with peritonitis. Immediate opera-

tion seemed to be clearly indicated when he first saw the case, thought the exact diagnosis was impossible. Incision made through the left linea semi-lunaris. Much bloody fluid removed, the pedicle of the spleen clamped, and the spleen cut away. It was much enlarged, engorged with blood, with a number of internal hemorrhages. Patient made a prompt recovery.

(2) Adeno-carcinoma of the tip of the appendix in a young lady of 19. Symptoms of chronic appendicitis had been present for about six months, and the usual interval operation had been advised and accepted. Appendix removed through the usual McBurney incision. Its distal end presented a tumor about the size of the last joint of the little finger. Seemed to be distinctly encapsulated. Microscopical examination showed it to be an adeno-carcinoma. Prompt convalescence.

(3) Enormous appendix, the size being due to distention with mucus. Specimen removed from a young man whose history showed very little in the way of ordinary symptoms of appendicitis. Acute obstruction of the bowels came on suddenly, and operation was made for the relief of that condition. This showed a loop of small bowel imprisoned in the inflammatory mass binding down this appendix. Adhesions were separated and the appendix removed, being preserved intact as a curiosity because of its size. Patient convalescent.

(4) A calcareous mesenteric gland. This had produced symptoms strongly suggestive of a stone in the right ureter. The presence of the stone was confirmed by X-ray examination but owing to its size, being unusually large for a ureteral calculus, the ureter was catheterized by Dr. Wilcox and a fine wire introduced into the catheter. X-ray examination then showed that the calculus was at least three-fourths inch from the ureter. Differential diagnosis between a concretion in the appendix, a calcareous gland, a phlebolith, or some similar condition, could not be made. Exploration was made through a McBurney incision and the calcareous gland at once discovered and readily removed. Prompt recovery.

Additional interest attached to this case from the fact that between the time of his first examination and the operation, he consulted an eminent Cincinnati surgeon who, as the result of a radiograph without ureteral catheterization, had made a positive diagnosis of ureteral calculus.

In the discussion, Fred Fletcher asked if simple appendectomy was radical enough for cases of this character. He cited a case recently reported by LeConte, where he had operated upon a young woman for suspected appendicitis, and found a carcinoma of the appendix with metastasis to the ileocolic glands. The patient convalesced, and later submitted to the resection of the cecum and several inches of the ileum. There had been no recurrence after a period of two years.

Dr. Baldwin said that in the majority of cases the disease seemed confined to the appendix, and that the removal of the organ effected a cure. He would not subject the patient to additional operative risk unless there was evidence of metastasis.

J. J. Coons said that the pathologist was generally first to discover the disease; that it was usually confined to the appendix and rarely recurred when the organ was extirpated.

The meeting of the Union County Medical Society was held May 26. The following papers were read: "A Practical Paper on Diagnosis," Starling Loving; "Treatment of Acquired Neurasthenia," G. T. Harding, Jr.

NEWS NOTES

W. C. Houston, Hamilton, is convalescing after a severe attack of erysipelas.

Joseph Gallen, Columbus, has been appointed a member of the medical staff of the State Hospital.

Albert H. Lane, Dayton, was thrown from his buggy, May 24, and sustained a fracture of the leg.

At the annual commencement exercises of the Toledo Medical College, May 26, a class of three was graduated.

The Miami Medical College, Cincinnati, held its annual commencement exercises June 1, when a class of sixteen was graduated.

Wilfred D. Sharp announces the removal of his office from London, Ohio, to 1872 East Seventh street, Cleveland, Ohio.

Verne A. Dodd announces the removal of

his office from 715 North High street, Columbus, to No. 23 West Goodale street, Columbus.

The commencement exercises of the Starling-Ohio Medical College were held May 20, when a class of thirty-one was graduated from the medical department.

Albert Jensen, Berlin, was the guest of honor of Christian R. Holmes, Cincinnati, at a dinner at the latter's home, May 31, when a large number of the local profession met the distinguished German otologist.

The Obstetric Society of Cincinnati met at the home of E. S. McKee, May 14. A symposium on the "Repair of the Perineum," was before the society. Papers were read by Drs. F. W. Stewart and Sigmar Starke, which were discussed by Drs. Wenning, Palmer, M. A. Tate and Wm. Gillespie.

Ernest Scott, Columbus, city bacteriologist, has resigned in order to give all his time to his position as professor of pathology in the Starling-Ohio Medical College, and pathologist to the Protestant and St. Francis hospitals. J. A. Beer, bacteriologist for the water works department, will succeed Dr. Scott.

The Columbus Board of Health recently passed a resolution requesting that all milk dealers sending or bringing milk into the city of Columbus during the months of June, July, August and up to September 15 shall keep the milk at a temperature of 50° F. or below. This rule is next year to be insisted upon as a requirement.

Following the action of the Pardoning Board recently in pardoning James A. Ambrose, the Montgomery County Medical Society at its regular June meeting passed the following resolutions:

"A conviction for criminal abortion is rare in the State of Ohio; not because it is not a heinous and horrible crime—not because it is uncommon or infrequently committed—but because under the existing state laws it is almost impossible to convict for this crime.

"When, therefore, a flagrant case of abortion has been exposed, where for instance, both mother and child have been sacrificed, and the criminal has been arrested; and when, after an extended and fair trial, he has been found

guilty, and, after a motion for a new trial has been overruled, a sentence of eighteen months in the penitentiary has been pronounced; it seems to this society that the exercise of the pardoning power of the state in favor of such a criminal is an unwarranted and dangerous abuse of that power.

"Whereas, The above statement is but a brief recital of the facts of a recent prosecution for criminal abortion in Montgomery county; and

"Whereas, This crime is now alarmingly frequent and increasingly so, and the only excuse given for the exercise of the pardoning power in this case is that 'two or three hundred of the neighbors' of the criminal, and 'twenty physicians of Montgomery county signed a petition for pardon,' and 'three physicians of Dayton wrote letters recommending a pardon' (the character and standing of all these physicians being unknown to us); therefore, be it

"Resolved, That the Montgomery County Medical Society, composed of one hundred and fifty-eight members of the medical profession in Montgomery county, hereby expresses its decided condemnation of such a use of the pardoning power, and further expresses its regret that the work of the court and its officers in punishing crime and upholding the morals of the community should be thus nullified, and the heinous character of the crime of abortion minimized, not only before this community, but before the whole State of Ohio.

"Resolved, That a copy of this paper be sent to the state board of pardons, to the governor and to each of the daily papers of Dayton for publication."

MEETING OF THE STATE SECRETARIES AND EDITORS, HELD IN CHICAGO, JUNE 1, 1908.

The national secretary, Geo. Simmons, called the meeting to order and presented the temporary chairman, Walter Cheyne, of South Carolina.

There were forty-one representatives from all parts of the United States, a very gratifying evidence of the interest aroused.

Dr. Cheyne stated the object for the call for the meeting to be the establishment of a permanent organization for mutual assistance in organization and editorial work. He read several letters from state secretaries and editors who were unable to be present, all heartily endorsing the plan, and which, with the large representation present, showed the universal approval and the sense of need for such an Association.

He then called upon the following speakers:

W. R. Townsend of New York, who discussed "The Duties of State Secretaries"; Melville

Black, of Colorado, who discussed "Medical Organization"; P. M. Jones, of California, on "The Duties of Secretary and Editor."

C. E. Cantrell, of Texas, member of the National Board of Trustees, who spoke of the "Relations to the American Medical Association"; George Bulson, of Indiana, "Journalism."

R. W. McAlester, of Missouri, then read a proposed constitution and by-laws which were adopted.

In accordance with the new constitution the following officers were elected:

President, Walter Cheyne, South Carolina; First Vice President, P. M. Jones, California; Second Vice President, W. R. Townsend, New York; Secretary, L. H. South, Kentucky.

The Association then adjourned to meet in June, 1909, at Atlantic City, N. J.

President Roosevelt has accepted the presidency of the International Congress on Tuberculosis. His letter to Dr. Lawrence F. Flick, chairman of the Committee of Arrangements for the Congress, follows:

The White House,
Washington, May 12, 1908.

Sir: It is with great pleasure that I accept the presidency of the "International Congress on Tuberculosis," which is to meet in this city on September 21, 1908, and extend its session to October 12, 1908. Official duties, however, may prevent my presiding at the initial meeting of the Congress, in which case I will deputize Secretary Cortelyou.

The importance of the crusade against tuberculosis, in the interest of which this Congress convenes, can not be overestimated when it is realized that tuberculosis costs our country two hundred thousand lives a year, and the entire world a million lives a year, besides constituting a most serious handicap to material progress, prosperity and happiness, and being an enormous expense to society, most often in those walks of life where the burden is least bearable.

Science has demonstrated that this disease can be stamped out, but the rapidity and completeness with which this can be accomplished depend upon the promptness with which the new doctrines about tuberculosis can be inculcated into the minds of the people and engrafted upon our customs, habits and laws. The presence in our midst of representatives of world wide workers in this magnificent cause gives an un-

unusual opportunity for accelerating the educational part of the program.

The modern crusade against tuberculosis brings hope and bright prospects of recovery to hundreds and thousands of victims of the disease, who under old teachings were abandoned to despair. The work of this Congress will bring the results of the latest studies and investigations before the profession at large and place in the hands of our physicians all the newest and most approved methods of treating the disease—a knowledge which will add many years of valuable life to our people and will thereby increase our public wealth and happiness.

The International Congress on Tuberculosis is in the interest of universal peace. By joining in such a warfare against a common foe the peoples of the world are brought closer together and made to better realize the brotherhood of man; for a united interest against a common foe fosters universal friendship. Our country which is honored this year as the host of other nations in this great gathering of leaders and experts and as the custodian of the magnificent exhibit which will be set up by the entire world, should manifest its appreciation by giving the congress a setting worthy of the cause, of our guests, and of ourselves. We should endeavor to make it the greatest and the most fruitful Congress which has yet been held, and I assure you of my interest and services to that end.

With expressions of appreciation for the compliment conferred in extending the invitation to become president of the Congress,

Very respectfully,

Theodore Roosevelt.

Dr. Edward L. Trudeau has been elected honorary president of the Congress, and Vice President Fairbanks, Speaker Cannon and the governors of the states have been asked to serve as vice presidents. The list of vice presidents is not complete, but those who have agreed to serve in that capacity include Vice-President Fairbanks, Speaker Cannon, Governors Gillet, of California; Buchtel, of Colorado; Woodruff, of Connecticut; Deneen, of Illinois; Hanly of Indiana; Cummins, of Iowa; Hoch, of Kansas; Wilson, of Kentucky; Cobb, of Maine; Crothers, of Maryland; Warner, of Michigan; Johnson, of Minnesota; Noel, of Mississippi; Folk, of Missouri; Floyd, of New Hampshire; Fort, of New Jersey; Hughes, of New York; Glenn, of North Carolina; Burke, of North Dakota;

Harris, of Ohio; Chamberlain, of Oregon; Stuart, of Pennsylvania; Ansel, of South Carolina; Patterson, of Tennessee; Culter, of Utah; Proctor, of Vermont; Swanson, of Virginia, and Dawson, of West Virginia.

The German committee of arrangements for the Congress has a membership of over one hundred and fifty. The list forwarded to the secretary-general by Dr. Nietner includes some of the highest dignitaries of the Empire. Dr. von Bethmann-Hollweg, the president of the committee, is the Imperial Secretary of the Interior and the Vice-Presidents of the Prussian Ministry of State. The vice presidents are Count von Lerchenfeld, royal Bavarian State Councillor and Ambassador Plenipotentiary, and Baron von Kneesebeck, royal master of ceremonies and Chamberlain to her majesty the Empress, and the treasurer is Ernst von Mendelssohn Bartholdy, a member of the Prussian Diet. Another distinguished member of the committee is Victor, Prince of Hohenlohe and Corvey and Grand Duke of Ratibor. Drs. von Leyden, B. Frankel, Orth, Baginsky and Nietner constitute the central commission, and others named on the list include Dr. Robert Koch, Dr. Emil von Behring, Dr. A. Frankel, Dr. Richard Neisser, Dr. Lydia Rabinowitsch-Kempner, Dr. G. Pannwitz, Dr. Schottelius, Dr. Abb, secretary of the Civil Cabinet of the Emperor at Berlin; Dr. Bumm, president of the Imperial Board of Health; and Dr. Schjerning, general chief of the Army Sanitary Corps and of the Medical Division of the War Department.

A committee of sixty-four members has been appointed to arrange for the part Belgium will take in the Congress and in the exhibition to be held in connection with it. M. Beco, the governor of Brabant, is honorary president and Dr. Dewez, president of the Belgian Anti-Tuberculosis League is president of this committee. Other members of the committee are M. Velghe, director-general of the Ministry of Agriculture; Dr. Van Ryn, secretary general of the Belgian Anti-Tuberculosis League; Dr. Bordet, director of the Pasteur Institute at Brussels; M. R. Waracque, Dr. Cousot and Dr. Descamps, all of whom are members of the Chamber of Representatives; Dr. Devaux, Inspector General of the Department of Health and Hygiene; Dr. Courtoy, president of the Provincial Medical Commission of Namur; Dr. Dethier, director of the Anti-Tuberculosis Dispensary at Namur, and Dr. Wouters, director of the dispensary at Louvain.

A CONVICTION IN NEWARK FOR ILLEGAL PRACTICING.

In the case of A. A. Taylor, charged with the illegal practice of medicine which was tried before Probate Judge Brister and a jury the jury returned a verdict of guilty. Attorney P. B. Smythe, representing the defendant, immediately gave notice of his intention to file a motion for a new trial.

CHARGE TO JURY.

The following is Judge E. M. P. Brister's charge to the jury in the case of the State vs. A. A. Taylor, found guilty Wednesday by a jury for a violation of a statute regulating the practice of medicine in the State of Ohio. Mr. Taylor practiced neuro-magnetic healing.

Gentlemen of the Jury: This case comes into this court upon an information herein by James R. Fitzgibbon, prosecuting attorney. I will not read it all. It will be left with you and you will see it.

"Be it remembered that J. R. Fitzgibbon, prosecuting attorney of said county of Licking, comes here before said court, on the fourth day of May, 1908, and in the manner and by the authority of the State of Ohio, informs the said court that A. A. Taylor, whose other or Christian name is unknown, late of Licking county, on the twenty-seventh day of July, in the year of our Lord 1907, with force and arms in the county aforesaid, did knowingly, unlawfully and wilfully practice medicine without first having complied with the provisions of an act of the General Assembly of the State of Ohio, entitled, 'An act to regulate the practice of medicine in the State of Ohio,' in this, to-wit:

"He, the said A. A. Taylor, did use the title Dr. and Doctor in connection with the administration of a certain treatment for and upon one A. D. Darkes," etc.

Now, there is quite a lengthy statute here covering this whole matter and I shall not attempt to read it all to you, but I wish to call your attention to the fact that the State of Ohio takes great pains to protect, by proper legislation, the practice of medicine; and that is not done in the interest of doctors or any medical trust, or any individual doctor, but it is done for the safety and protection of the community, the citizens of the State of Ohio.

People who are wounded or diseased place their limbs, their health and their lives in the hands of this medical profession, and it is a matter of the utmost public concern and interest that the practice of medicine needs to be safeguarded and to be conducted by competent men. This law works no hardship: it is not directed against the interest of any individual. All citizens are on the same footing in regard to the practice of medicine. Any man who has sufficient intelligence can comply with the requirements of the law and may fit himself to practice medicine le-

gally; and unless he does that he has no right to practice it at all.

Now, the law requires a number of things. In the first place, every man who desires to practice medicine in Ohio must pass a proper examination and obtain a proper certificate from the State Board of Medical Examination and Registration, which the law presumes—whether right or wrong, I do not care—are competent to issue a diploma.

I read this section of the statute to you to show the limitations which the State of Ohio puts on the practice of medicine and the safeguards which it puts around it. As a condition for admission to the examination the law says:

"In the application, as a condition of admission to the examination, he shall produce either of the following credentials: A diploma from a reputable college granting the degree A. B., B. S., or equivalent degree; a diploma from a normal school, high school or seminary, legally constituted, issued after four years' study; a teacher's permanent or life certificate; a medical student's certificate issued upon examination by any state board; a student's certificate of examination for admission to the freshman class of a reputable literary or scientific college, or a certificate of his having passed an examination conducted under the direction of the State Board of Medical Registration and Examination by certified examiners, none of whom shall be either directly or indirectly connected with a medical college."

Then, when he passes that examination, and obtains that certificate, the State of Ohio says that certificate must be placed on record in the Probate Court of the county where he expects to practice.

Now, the only question here is: Did the defendant violate section 4403-f, the first part of this section: You are to distinctly understand that that is the only provision before you under your oaths as jurors. It is none of your business whether this defendant went about doing good and healed Tom, Dick and Harry. Evidence to that effect was ruled out and is not before you. But I wish to say to you that, even admitting that he did, or if any other citizen did, if, at the same time, he was violating the section of the statute referred to, that statute determines his guilt or innocence, and nothing else. If he violated that statute, he is guilty, and if he is guilty it is your duty to say so under your oaths. And you have nothing to do with the consequences of your verdict. You do not know whether this court, if the defendant is found guilty, will fine him \$500 or 15 cents. It is a simple plain question: Did this defendant do what the statute prohibits, or did he not?

I say to you, and with all proper emphasis, that A. A. Taylor comes into this court clothed with the presumption of innocence. He does not have to prove that he is innocent. The state has to prove that he is guilty. He is presumed to be innocent until the state convinces you beyond all reasonable doubt that he is guilty. I attempted to define that term to you the other day, which nobody can define exactly, I guess; but it must

be: Beyond a reasonable doubt, a doubt founded upon reason. Not a weak, silly, captious doubt; not a doubt conjured up from the imagination; but a doubt which your reason and judgment force upon you and compel you to look to.

Every juror in this panel must be convinced beyond all reasonable doubt that this defendant is guilty as charged before you can so find.

If, after listening to all the evidence and the arguments of counsel and the charge of the court, your minds are still unconvinced of the guilt of the defendant beyond all reasonable doubt, you must say so, and you will acquit him. I am trying to give you the law as best I can. You are the sole judges of the facts of the evidence in the case. There is not a great deal of it. It is very simple, it seems to me, and you are the judges of the creditability of the witnesses; whether they are to be believed or not; and, in the second place, the weight and importance that you attach to their testimony. This section, 4403-f, is the one that defines the offense or crime charged, and there are two distinct offenses mentioned in this section. The first offense is the one which you are trying the prisoner for. The second offense is prescribing medicine and practicing medicine. And you will completely ignore it, because the information is defective on that point, and no evidence was entertained upon it.

But the offense of which the defendant is guilty or not guilty is described or defined in this section, 4403-f:

"Any person shall be regarded as practicing medicine or surgery or midwifery, within the meaning of this act, who shall use the words or letters 'Dr.,' 'Doctor,' 'Professor,' 'M. D.,' 'M. B.,' or any other title, in connection with his name, which in any way represents him as being engaged in the practice of medicine or surgery or midwifery, in any of its branches."

Now, remember carefully what that section says:

"Any person shall be regarded as practicing medicine or surgery or midwifery, within the meaning of this act, who shall use the word or letters 'Dr.,' 'Doctor,' 'Professor,' 'M. D.,' 'M. B.,' or any other title in connection with the practice of medicine or surgery or midwifery, or in any of its branches."

Now, gentlemen, you have heard the evidence. You will weigh it carefully and determine whether the defendant has used any of these prohibited terms in connection with his name, or any other title; and, of course, in any way—whether in a newspaper, on a card, or letterhead, or a sign, or any other way in which you can use a thing. You all know what the word use means.

If you find that this defendant has used these prohibited terms in that way, under the definition in this statute, then, of course, he is guilty of the offense. If he has not used them in that way, then, of course, he is not guilty, and you will say so by your verdict.

Here are two blank verdicts. One of them is "guilty," and the other is "not guilty." You will elect one of your number as foreman, and when you arrive at a verdict have the verdict signed by your foreman.

All but the jury may now retire.

DEATHS

K. O. Foltz, Cincinnati Medical Institute, 1886, president of the Ohio State Electric Medical Society and editor of the Electric Medical Journal, died at the Seton Hospital, Cincinnati, June 6, from acute Bright's disease; aged 50.

Harry Blackford, Pulte Medical College, Cincinnati, 1904, died at his home in Middletown, June 8; aged 41.

James Coe Culbertson, Bellevue Medical College, 1865, died at his home in Cincinnati, June 4, from arteriosclerosis, after a long illness; aged 67.

G. B. Spencer, Western Reserve University, 1867, died at his home in Weston, May 31; aged 62.

A. J. Back, Keokuk Medical College, 1898, died at his home in Montpelier, May 28, from fatty degeneration of the heart; aged 46.

Georgiana Fulton, Cleveland University of Medicine and Surgery, 1890, of Steubenville, died May 17, after an illness of several months; aged 44.

J. H. Hazard, Medical College of Ohio, 1867, died at his home in Cincinnati, May 24; aged 61.

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ORIGINAL ARTICLES

"FIBROID DEGENERATION OF THE APPENDIX VERMIFORMIS."

ROBERT T. MORRIS, M. D.,
New York City,

[Read before the State Medical Association, Columbus, 1908.]

Mr. Chairman, Members of the Ohio State Medical Association:

Last month I was down south, and my host told about some northern people who had spent the winter with them. A kindly lady enjoyed going about among the poor people, doing nice little deeds of charity. About Christmas time she went to the hut of an old negro mammy and her boy Joe. Giving the boy a two-dollar bill she said, "Now Joe, I want you to have a merry Christmas. Take this money and get a turkey." As soon as the door was closed, she heard the old mammy say, "Heah, yo boy Joe. Gimme dat ar two-dollar bill, and you go get dat ar tuckey in de natural way."

What I am to give you today is of value as a suggestion, but I want to have you all go out and get the subject in a natural way tomorrow.

A good many years ago we used to have dignified consultations on the question whether or not there was something in a given appendix. Sometimes two, or three, or four physicians were called; sometimes even the mother-in-law and members of the family, and the question was not always decided as to whether there was something in it or not. The question of operation often hinged on that point. We are away past that point today, and we know the biggest thing that ever gets into the appendix is the bacterium.

We are still going over this same old ground with gall bladder surgery; trying to decide whether there are gall stones in the gall bladder or not, and if we operate for gall stones and do not find any, we separate adhesions. The patient gets well, and gains weight to our surprise. It does not make any difference whether gall stones

are present or not. It is the bacterium again; never mind the gall stones.

But "what we look for we find" is an old saying; I believe it dates back to Plato; and we can find tomorrow a type of appendix which takes more patients to the doctor's office, I believe, than any other kind of affection of the appendix. It is, furthermore, an affection of the appendix which has been overlooked more than any other, and while a few men make the diagnosis regularly, it is only a few men today who make a diagnosis of this condition. I refer to a condition which attracted the attention of Senn, who called it "*appendicitis obliterans*." Then Ribbert took the matter up and described the condition as "normal involution of the appendix."

We have not had a proper nomenclature to give direction to our views on the subject. There is nothing so important in medicine as nomenclature. Mr. Cleveland said there was nothing so important in politics as phrases. It is true in medicine. Wood alcohol has caused blindness and death because very few people are scared by wood, and fewer still by alcohol. The term "gonorrhoeal rheumatism" has led to disaster, because anti-rheumatic treatment was given when it was exactly the thing these patients could not bear. We should get up the opsonic index and call out the leucocytosis in these cases. The name gonorrhoeal rheumatism was a fatal nomenclature.

The most fatal name perhaps has been "catarrhal appendicitis"; under that name, infective appendicitis has often run its disastrous course. We have lacked, however, the proper nomenclature to direct attention to the most common form of affection of the appendix. This condition, I believe, is commonly best described now as fibroid degeneration of the appendix. That is the nomenclature upon which I have come to rest at the present moment, after trying "metaplasia" and "normal involution." "Appendicitis obliterans" of Senn is not quite descriptive, because the inflammatory process is secondary to fibroid contraction. It is an irritative process rather than

an infective process, and we are to keep distinctly in mind the difference between the irritative processes and the infective processes.

Further, when we have fibroid degeneration of the appendix, I believe we have protection against the infective processes, for two reasons:

First, during the course of fibroid degeneration the lymphoid coat, the mucous coat and the sub-mucous coat disappear. These are the coats chiefly involved in the infective processes, and with their disappearance we have disappearance of the danger from the infective processes.

Again, and in the second place, the irritation in case of fibroid degeneration of the appendix calls out the local protective leucocytosis, which guards against the invasion of infection.

Fibroid degeneration of the appendix may begin very early in the life of the individual, but the symptoms are not prominent much before middle life, and we see few patients with the symptoms of this condition before the age of twenty. These patients present commonly the cases of intractable intestinal dyspepsia; that is the end of the diagnosis frequently. There are other causes for intestinal dyspepsia, to be sure, but so far as my experience goes, fibroid degeneration of the appendix is the most common single cause for intestinal dyspepsia.

We have membranous colitis also dependent upon this degeneration. We have membranous colitis also dependent upon other things, but fibroid degeneration of the appendix is often the precipitating factor.

If a man keeps this idea well in view, he will not be classed as an extremist or a man of fanciful and peculiar views by the neurologist, who is likely to look too lightly on our knowledge of reflex disturbances. They do not comprehend altogether some of the things which we surgeons see.

Intractable intestinal dyspepsia is the commonest single symptom of fibroid degeneration. There is almost always an accumulation of gas in the caecum and ascending flexure, discoverable on percussion. Formerly I told these patients that their pain was not due to any trouble with the appendix, but was due to a collection of gas in the caecum. What I said to these patients was wrong. The reason why there is a collection of gas in the caecum and in the ascending colon I believe to be due to the influence of irritated nerve filaments in the fibroid appendix on the motor nerves of the muscularis of the bowel, so that it does not act properly, and there is a tendency to collection of gas because the bowel is distended, and not because the gas collection primarily distends the bowel.

We find these appendices on palpation harder than normal, and with a certain degree of tenderness as a rule, but not always. When the appendix begins to undergo fibroid degeneration, there is a disappearance of the lymphoid coat, mucous coat and sub-mucous coat. Later we have disappearance of the muscular coat and finally of the peritoneal coat; and during all these changes of disappearance of structure, and replacement of the structure by hyperplastic connective tissue, one structure remains, and that is the cause of the trouble. The nerve filaments persist in these degenerating appendices longer than any other structure. I discovered this rather by accident, going over with the microscope certain appendices which had caused great disturbance, when I was struck by the grouping of new cells in certain parts of the appendix, which was indicative of a high degree of irritation. I found that nerve filaments were persisting, and these were surrounded by groups of new cells. We had a condition similar to that found in the stump of a leg after amputation. The nerve filaments are pinched by the contracting connective tissue, and this tells the patient whether the wind is north, south, east or west. We have the same thing precisely in the appendix.

Another type of appendix quite similar in appearance is one in which the nerve filaments have been destroyed by an acute infective process. So we are able to elaborate our cases into two separate and distinct kinds, in patients in whom there is little or no lumen of the appendix left. We can differentiate these cases by finding nerve filaments persisting in fibroid degeneration, and those in which they are destroyed by infection. In fibroid degeneration we have first a loss of the lymphoid, then the submucous and mucous, and then the muscularis. I will pass about specimens showing the condition, and while these are going about will make some concluding remarks.

One specimen which you will all recognize is that of irregular fibroid degeneration. There are nodes of mucosa and submucosa left, and in between are the inter-nodes of fibroid degeneration.

The next specimen is one in which the appendix appears to be normal, but on close inspection it will be seen to have no lumen. On microscopic examination it shows a fibroid replacement of the inner coats.

All these patients were cured of intestinal dyspepsia promptly by removal of the appendix. We sometimes remove appendices which look pretty nearly normal, and think we have made a mistake in diagnosis, and yet the patients get well, lose their symptoms, and are so much improved that

we wonder what has happened. This appendix, which looks almost normal, has, in reality, undergone fibroid degeneration of the inner coat, and has no lumen.

The darkest colored specimen, in which one-half has undergone degeneration, and the other half contains all the normal structures, caused disturbance for years.

This hard specimen is one in which all the structures have disappeared excepting a little of the peritoneum and a trifle of muscularis. These patients were invalids because of the fibroid structure contracting and irritating sensory nerves. Also the sympathetic ganglia are disturbed, so that the function of digestion is deranged by this little cap which fires off the whole charge. One may say in looking at this that it is a little structure of not much importance. You remember in the old days when we used to load up the old musket to shoot a woodchuck, we had a big load, and a little cap to set the whole thing off. This was the old G. D. cap, and the patients sometimes speak of the appendix in that way.

This photograph shows a section of the appendix representing the condition, and the line of cleavage is shown by a little white line, the appendix entirely replaced by connective tissue.

These are the patients who walk into the office with the appendix in the shape of a question mark. They say, "Doctor, I have come to see you about my appendix. Dr. Smith says I have appendicitis; Dr. Jones says I have not. Dr. Brown says I have; Dr. Borgan says I haven't; etc. I have thirty diagnoses." These patients go the rounds of the profession and no one is able to decide exactly the condition. That has been the custom: but if we find a certain group of symptoms: intractable intestinal dyspepsia, gas in the caecum and ascending colon, and a little muscle resistance, but not much; a persistent sense of discomfort in the appendix region, so the patient is inclined to press the hand over the region of the appendix, we may look for the last sign, the determining point, which I shall now describe, in giving the diagnosis of this condition. The patients have attacks of discomfort in this region most of the time. Some days a little less, other days a burning in this region, and other days sharp pain. They are so much inclined to press with the hand on this point that it is a characteristic movement. The moment they come into the office I say to myself, after the manner of the gentlemen who advertise in the lay press, "I know what your trouble is." The patient with a scar appendix, the remnants of an infected appendix,

does not do that, but the patients with the chronic irritative process are always pressing over the appendix region with one hand.

The last diagnostic point I will try to give here: (Dr. Morris illustrated at the blackboard.)

There is a group of ganglia about an inch and a half from the navel—the lumbar ganglia. When we have fibroid degeneration with nerve filaments entrapped, there is a sensation transmitted to that group of ganglia, and if we press with our fingers about one inch and a half from the navel, the patient will instantly tell you the point is sensitive. That is the diagnostic point of determining value in these cases. When the patient has intractable intestinal dyspepsia, and the caecum distended with gas, a sensation of burning and discomfort in the region, and on palpation we find a hard appendix, if we note this final point, hyperesthesia of the right lumbar ganglia, that settles the question. If there is hyperesthesia left group also, then look to the pelvis for the source of irritation instead of the appendix. Both groups of the ganglia will be hyperesthetic all the time with pelvic irritations. But with the appendix and a Fallopian tube side by side, if it is the appendix it is the right group of ganglia alone that we find hyperesthetic. If it is the oviduct, both groups are so. This point is of determining value in deciding whether we have an appendix which is a source of irritation, and yet not the subject of a septic invasion.

In making the diagnosis, a loose kidney pressing upon the superior mesenteric vein will sometimes cause a congestion of the appendix and in that case there is the hyperesthesia of the right ganglia; but the loose kidney is in evidence and Lumbar ganglia not hyperesthetic.

In eye-strain we have very much the same intractable intestinal dyspepsia, but the gastric dyspepsia is apt to be the dominant type, and we have the history on which to base our conclusions. Lumbar ganglia not hyperesthetic.

In conclusion, I would be glad to answer any questions on the subject. Some of my assistants began to call these appendices "Morris appendices," because of my interest in studying the subject, and from that some doctors came to call normal appendices "Morris appendices." The nomenclature was wrong. When men were operating for some other condition and a normal appendix came into the field, they would say in fun, "That is a Morris appendix." By *reductio ad absurdum* it was concluded that I approved of the removal of the normal appendix, but not so. If there is infection, very well, but I am opposed to

removal of the normal appendix when it appears in the field in another operation.

If for the sake of brevity it is desirable to speak of fibroid degeneration of the appendix by some other name, we must remember that Senn and Ribbert noted the condition before I took up the study.

"LIQUID CARBONIC ACID SNOW IN DERMATOLOGY."

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[Read before the Ohio State Medical Association, May 6, 1908.]

The advent of liquid carbonic acid snow as a successful dermatologic therapeutic agent is comparatively recent, and up to the present moment relatively little has appeared in official medical literature, regarding its clinical achievements. The impulse which accomplished its successful application owed its inspiration to the more or less successful trials accorded to liquid air in dermatology, which began shortly after the remarkable physical properties of the latter agent were clearly demonstrated. Liquid air was first employed in dermatology by American physicians, and although seven or eight years have already elapsed since the first experiments were carried out, very little has appeared in the interim in medical literature, and that has not only been meager but somewhat vague and indefinite in character. Text-books which have appeared up to the present and preceding years, make little or no reference to it, and but little has appeared in the nature of original articles and references in dermatologic journals. These results are due not that the early experiments lacked clinical achievement and positive success, but to the difficulties encountered in procuring and preserving the agent, and the inordinate expense therewith incurred. Liquid air, therefore, came to be regarded to possess more scientific interest than actual practical value and importance.

These difficulties were promptly recognized and the efforts to obviate them, directed the medical attention early to ethyl chloride and liquid carbon dioxide in the effort to find a substitute which could be readily and economically procured, indefinitely preserved and at the same time possess the essential physical properties of liquid air.

Saalfeld on July 3, 1900, reported his results with liquid air to the Berlin Dermatologische Gesellschaft, stating that his first impulse to use that agent was inspired by the success (the source of his information, daily press or medical jour-

als, is not stated) which attended the experiments of his American confreres the preceding year. He further states that he was deterred by the excessive cost of the agent from carrying on any further experiments, despite some excellent clinical results in lichen ruber planus, chronic eczema of twelve years duration, tylosites, warts, and soft chancre. In his own words he states that "the Americans claim that liquid air is as cheap as selzer water; I don't know how expensive selzer water is in America, but liquid air in Berlin costs \$5.00 per quart." For these and other reasons, namely, that liquid air could be preserved but a relatively short time, he sought a substitute, without success in liquid CO₂, and later in ethyl-chloride, methyl chloride, and finally in a mixture of the two latter liquid gases.

Dethlefsen in January, 1900, and January, 1901, reported two cases of lupus vulgaris successfully treated with ethyl-chloride, and his example has been emulated by a large number of investigators, who have extended the field of application to many other forms of cutaneous affection.

White in 1899, Macfayden and Wollf and Meyer in 1902 reported laboratory experiments with the liquid air on various bacilli and micro-organisms, and found that it was incapable of destroying germ life even upon prolonged exposure, and its influence in that direction was at the most merely inhibitory.

Arning, in a report to the eighth German Dermatological Congress at Sarajevo in September, 1903, on *Weitere Erfahrungen ueber therapeutische Anwendung höher Kältegrade bei Hautkrankheiten* (further observations on the therapeutic application of intense cold in diseases of the skin), stated that he emulated the previous investigations of Saalfeld in trichophytosis, and Dethlefsen of Holstenbro, Denmark, in lupus and epithelioma, and extended his researches from these affections to lupus erythematosus, chronic eczemas, pruritus ani, hard and soft chancres, leg ulcers and X-ray burns. The results in all cases were of a gratifying character. The discussion called forth that the method had been employed with somewhat varying success by Wollf, Kreibich, Saalfeld, Mracek, Ehrmann, Neisser and others. Neisser also recommended liquid carbonic acid gas as a substitute in a manner similar to that in the laboratory when used with the freezing microtome.

Hartzell in 1904 and Whitehouse in 1907, in papers before the Cutaneous Section of the American Medical Association, extolled the therapeutic efficacy of ethyl-chloride and liquid air in lupus erythematosus, naevi, lupus vulgaris and epitheliomata.

It is evident, therefore, that the intense cold secured by liquid air was nearly conceded to possess great therapeutic value, but certain obstacles precluded its ready and general acceptance, and stimulated the profession to seek a substitute. The necessity of preserving liquid air in open vessels, owing to its constant evaporation and indefinite preservation, has been a serious bar to its early and more generalized use. These features have been materially remedied but not

serious objections, and offers more exact application and control. As already stated Pusey is by no means the first who has attempted to use liquid carbonic acid gas as a therapeutic substitute for liquid air, Saalfeld as early as 1900 and numerous others since have worked in vain with this agent to affect its practical application. Devices have been employed in connection with its use, but without enhancing the success of the application, and often resulted in their being



FIG. 1—Tattoo mark treated with carbon dioxide snow for the purpose of removal. Bullae 24 hours following the application.

entirely obviated by the modern use of Dewar bulbs, double walled vacuum containers, which prevent radiation and thereby minimize evaporation of the liquid, but not to the extent to permit the vessel to be tightly closed or sealed.

To Pusey of Chicago belongs the great credit of discovering an efficient practical substitute, liquid carbonic acid snow, which possesses the chief physical property of liquid air, intense cold— -65° C., to air— -120° C., obviates its many

painfully frozen to the struggling and terrified patient. (Hubbard.) Pusey, who called the attention of the American Dermatological Association to the possibility of using liquid carbon dioxide snow in December, 1905, frankly admits that he received his idea from watching the demonstration of Trimble and made with liquid air on pigmented nevi.

Liquid carbonic acid gas can be readily and cheaply obtained in almost any small city and can

be conveniently shipped to any remote or ordinarily inaccessible place. It is sold in large iron cylinders which contain twenty gallons, at a cost of \$2.00, or ten cents a gallon, whereas liquid air costs \$10.00 per gallon. Liquid carbonic acid gas can be preserved indefinitely, and one tank suffices for a large number of applications.

Its technical application is exceedingly simple. The tank, resting at a slight elevation from the floor, best over the horizontal arms of an operating chair, is placed in a horizontal position after it has been fitted with a short nozzle and lever for receiving and releasing the gas. The nozzle is then wrapped with a piece of chamois, about ten inches square, the first fold being taken in its middle, and the remainder of the chamois being then wrapped about the short nozzle, in the manner that you would envelop a lead-pencil with the concentric turns of a handkerchief. When this is completed, the tube-like chamois is folded upon itself and the two ends held tightly about the proximal end of the nozzle, so that when the gas is released it condenses within the enclosed chamois-space to form a heavy pencil of carbonic acid gas snow. The lever is then turned tightly off, to prevent any further escape of gas, the chamois is unfolded from the nozzle and the snow pencil further molded into any desired shape with the aid of the fingers, properly protected by the chamois. Pusey recommends a chamois bag for collecting the snow, but I believe that a square piece of chamois is far preferable.

The molding of the snow can be greatly facilitated by kneading it into any desired shape upon a marble slab, upon which it can be readily compressed into any desired form, cubes, quadrilateral prisms, linear discs, etc., as best adapted to the special indications, without requiring any preliminary shaving or shaping. The snow will compact itself into a much smoother, firmer and regular mass than if otherwise molded and shaped.

In a personal letter, dated April 28, 1908, Dr. Pusey writes to me as follows: "I have improved somewhat in the method of molding the snow. I find the best way to mold the snow is as follows: I have a number of hard rubber cylinders of assorted sizes about one inch to one and one-half inches long; these vary in diameter from one-quarter of an inch to an inch or more. Anybody can make them by taking hard rubber tubing and sawing it off into short sections. I take the snow and pack it firmly into these cylinders. I use for this purpose simply the blunt end of a pencil. You can pack it into a solid cylinder, which can readily be pushed out from the mold, and it gives you a solid cylinder of snow which can be shaved so that it has a square cross-

section, or into any other desired shape. For treating very small points the ordinary conical ear specula are adapted to the purpose. You pack the snow into these just as you do into the ordinary cylinder, and then push it through until it projects beyond the small end of the speculum. Then you can hold the speculum by the large end with the thumb and next two finger tips, and by holding the pencil between two fingers exert steady pressure on the snow so that as it melts it will punch down through the tip of the speculum. In this way you can keep a cylinder of snow from one-quarter to one-eighth of an inch in diameter constantly protruding from the end of the speculum. In this way you can use a cylinder of snow not more than a sixteenth of an inch in diameter, and thus apply it sharply to the smallest lesions."

I have given these methods of molding the snow careful trial and consideration, and am most favorably impressed with the use of hard rubber nasal and ear specula for the treatment of small points. For the treatment of larger lesions, however, I greatly prefer molding the cigar-shaped mass of snow as it is ordinarily collected in the chamois, into a smooth, firm compact prism, by compressing it upon a marble slab.

The base of the tank should be elevated six or eight inches above the level of the nozzle extremity, when preparations are made for releasing the gas. Care should be exercised not to elevate the base too much, as the tanks frequently contain a little water, and if this is allowed to flow out through the nozzle it precludes the success of the undertaking.

METHOD OF APPLICATION.

The snow, after it has been compressed into convenient size and shape, is then held by fingers protected with the chamois or gloves and applied with moderately firm pressure to the area to be treated. The pressure should be uniform, moderate for the more superficial lesions, and firmer for those more elevated or deep seated in character. The applications should be carefully timed and should vary from ten to thirty or forty seconds, according to the superficial deep seated or elevated and thick character of the lesions, their situation under delicate and thin or thick resisting epidermis, and the amount of destruction and erosion of the tissues desired to be called forth. A more complete superficial destruction can be accomplished with deep seated reactionary inflammation by several applications, repeated as soon as the previous freezing has had time to thaw out. The applications are unaccompanied by much pain or distress, in the majority

of cases, except over specially sensitive areas like the temples, nose, eyes, etc. They are usually more painful to light than firm pressure. Pain immediately following the application can be materially relieved by hot compresses. When the applications are made over depressed surfaces, the area to be treated should be previously pinched up with the fingers of the assisting hand in order to protect the surrounding tissues from the action of the snow. As soon as the application is com-

of treatment and the character and location of the lesions.

In order to secure the best cosmetic results and for the comfort of the patient the surface to be treated should be relatively small in extent, not to exceed one-half to one square inch in area. Where a relatively large surface requires rapid treatment, it is advisable to apply the snow to relatively small areas, well separated from each other, the intervening space to be treated in like



FIG. 2—Patch of Lupus Erythematosus successfully treated with carbon dioxide snow, showing bullous reaction a few days after the application of treatment.

pleted the affected area is strongly indented, blanched and frozen to a solid consistence. The blanching and indentation rapidly fade and are followed by erythema. The erythematous lesion soon becomes converted into a wheal, and in the course of a few hours is transformed into a large, well distended clear looking bulla. These clinical changes are by no means constant and occasionally bullæ do not manifest themselves despite the most striking similarity in the method

manner at repeated sittings, at intervals of one to two weeks, after the inflammation from the previous sitting has disappeared. The individual areas thus treated should be fairly uniform in size and distribution, and rectilinear in outline, all of which can be carefully regulated by proper attention to the prismatic outline of the pencil of snow. The after treatment is comparatively simple, the parts being covered with a protective dry dressing to prevent the early rupture of the

bullae. After the bullae rupture the areas are treated as a simple inflammation.

CLINICAL REPORT.

My clinical observations, which date from December, 1907, to the present time, cover some 32 cases, and in the neighborhood of 60 individual applications. The 32 cases comprise 10 cases of lupus erythematosus, 5 vascular and 5 pigmented nevi, 5 tattoo marks, 2 chronic palmar eczema, 2 chloasma, 2 common warts, 1 lichen ruber verrucosus, 1 parakeratosis variegata, 1 condyloma acuminata, 1 X-ray burn. The best clinical results have been noted in the cases of vascular naevi and some of the chronic persistent forms of lupus erythematosus.

In lupus erythematosus a cure has apparently been effected in three very chronic obstinate cases, which had persistently baffled every well-known form of painstaking and prolonged treatment, within a period of three to four months.

Case 1.—C. F., aged twenty-eight years, with a very characteristic patch of lupus erythematosus over the right cheek, elliptical in outline, covering an area of a silver dollar, with actively spreading borders, and scaly, indurated and non-fading center. The eruption began September, 1906, and the spread has been rapid and continuous. Patient received uninterrupted attention from March 10, 1907, to December 23, 1907, without any apparent improvement of a permanent nature. The treatment embraced Roentgen rays, ultra-violet light from a Kromeyer mercury lamp, radical extirpation, iodine locally and quinine internally after the method of Hollender, and all kinds of local applications in the form of salicylic and mercurial plasters, resorcin, pyrogallie acid, red oxide of mercury, ointments, gelatin and gum tragacanth applications. Liquid carbonic acid snow was applied for the first time to the entire area on December 29, 1907, for twenty seconds, with marked improvement, on January 14, 1908, over limited areas, for ten seconds, February 12 for thirty seconds, and for the last time March 9, 1908, for twenty seconds, and discharged well April 6, 1908. There was immediate and marked improvement with each application, and recovery ensued after patient entertained the fear that his case was absolutely hopeless.

Case 2.—Mrs. L. G., aged thirty-eight years, with three persistent patches of lupus erythematosus at the angles of the mouth, which manifested themselves after an attack of herpes labialis five years ago, and have been slowly and persistently enlarged in spite of varied medical attention. Patient first came to my personal notice October 11, 1906, and for a period of more than

one year received the same character of attention, except radical extirpation, as the preceding with only slight and for the most part temporary improvement. Liquid CO₂ snow was applied for the first time January 7, 1908, for ten seconds to each area, on January 28 for ten seconds, on February 6, 19, and March 6 for twenty seconds, and dismissed as practically cured on April 8 when one small area, which had escaped previous attention was given finishing touches. Each application was followed by very marked improvement.

Case 3.—C. D., aged sixteen years, has been under my personal observation for almost nine years, for a persistent butterfly form of lupus erythematosus, covering nose, cheeks, and ears with patches partly cicatrized and partly active. Case has heretofore baffled every form of attention except 40% resorcin in linamentum exsiccans, which slowly overcame each recurrent attack, and controlled same for periods of about one or two years. The last attack which proved somewhat more persistent and refractory than preceding ones was promptly checked and practically controlled by a few applications of liquid CO₂ snow March 18, April 6 and 21. The remainder of the cases have shown immediate improvement, although observed for too short a time to permit a definite opinion as to the success of the treatment. This is particularly true of a case of lupus erythematosus of the scalp which has baffled for many years successful treatment. One child with patch of chronic cicatrized lupus erythematosus made an apparently complete recovery with one application on December 18, 1907. Two cases absented themselves after the first application.

The most striking effects of the treatment have been observed in several cases of vascular naevus. In one case, D. S., the right arm from the wrist to the elbow was enveloped in sleeve-like form by a very deep purplish red vascular naevus, elevated above the level of the surrounding skin almost an eighth of an inch. The first application was made February 3, 1908, when the baby was scarcely four weeks old, two large areas being exposed under firm pressure for twenty seconds each. The areas subsequently exposed, on April 7, 11, 14 and 22 were much smaller, and for thirty seconds duration. The applications have been followed by very marked improvement, and excellent cosmetic results, with the disappearance of both the unnatural elevation and discoloration. Another case of vascular naevus in a young girl of four years, although widely distributed over chin and right cheek, is light colored, deep seated and thus far has proved to be

unfavorable for the treatment. One pigmented hair-bearing nevus has been successfully removed, although its limited size would have rendered it equally favorable for removal by electrolysis.

TATTOO-MARKS.

Liquid carbonic acid snow was applied to the tattoo marks of five dermatologic or venereally infected patients of the Cincinnati Hospital, in all of whom there was a moderate degree of improvement to the extent that the areas treated were rendered paler in color and less distinct, without being entirely obliterated in a single instance. Most of the patients left the service within two weeks after the applications were made, and all within four weeks, as soon as they recovered from the ailments for which they sought admission, and no opportunity was afforded to carry these cases to a successful issue or to definitely determine the necessity of repeated applications. The earlier applications were twenty seconds in duration, the later ones, thirty seconds. It is difficult to estimate how little of the improvement was due to the inflammatory congestion, and discoloration incident to the treatment, and how much was permanent in character.

Although the limited period of observation in these cases does not permit an opinion as to the exact character of the improvement, it seems likely that it is not only partial and permanent, but that more prolonged intense, and repeated applications would successfully accomplish the desired result. The cosmetic result in all these cases was excellent, the lesions healing in less than two weeks time, with no disfiguring scar formation.

In verruca vulgaris, carbonic acid snow did not seem to possess any decided advantages over electrolysis, except ease and rapidity of application. In one case some were removed on the palmar and dorsal surface of the hands by both methods, and the cosmetic results were better from electrolysis. The snow produced considerable inflammatory reaction of an indolent character on the surrounding tissues, and a more prominent cicatrix. Both methods were otherwise equally efficacious. In a child of eight years, a large number of common warts were rapidly removed from the hands and face, with considerable pain, and with a little, and at least temporary, disfigurement.

A case of condylomata acuminata widely distributed over the vulvae, absented herself from treatment and further observation after one limited application.

A case of persistent long-standing lichen ruber

planus localized mostly over the lower extremities, promptly absented himself from treatment as soon as a few applications were made, even though the exact nature of the treatment and the sequellae were made clear. The results in this case could not be conjectured.

Two cases of chloasma likewise absented themselves without affording an opportunity to observe the results of the single treatment administered each case.

A case of parakeratosis variegata, or more strictly speaking parapsoriasis, because it was one of those obscure types of affection that clinically resembled both psoriasis and eczema seborrhoicum, and consisted of a number of small ill-defined yellowish red, greasy, faintly scaly patches, which for months had resisted the ordinarily successful measures in psoriasis and eczema seborrhoicum, and a number of other affections to which it bore some clinical resemblance, and was unfavorably influenced with X-ray, ultra-violet rays, etc., etc., yielded to liquid CO₂ snow when very energetically applied, but not to light pressure, short applications.

Thus far I have not used CO₂ snow in epithelioma, chronic eczema, leucoplakia, lupus, pruritus ani chancroid, and a number of other cutaneous affections, for which liquid air, ethyl chloride, and liquid CO₂ have been variously recommended; I am better impressed for the time being with the results achieved in these affections along other therapeutic lines. Some of these affections are sufficiently obstinate and persistent in their character to warrant almost any fairly rational form of tentative treatment, and the results in these cases will be awaited with considerable interest. Notwithstanding the favorable reports in X-ray burns, I could not constrain myself to apply the remedy in several recently incurred rather severe cases which presented themselves on my service at the Cincinnati Hospital. None were longer than two months duration; had they been indolently active for a year or more, I would have doubtless have tried the remedy in the cases. I have used the snow with partial success for the removal of the telangiectasis in the scar of an old healed out X-ray burn in a case where the latter had been unsuccessfully applied on a patch of lupus over the left cheek. The reaction was considerably more than the thin atrophic weakened tissues could well tolerate; and the treatment was carried to only a partial degree of improvement; the snow was not applied in this case to active remnants of lupus at some of the borders.

SUMMARY.

1. Carbon dioxide snow owes its advent as a therapeutic agent to the successful experiments with liquid air, which, because of its expensive, unobtainable and perishable character, possessed scientific rather than practical value, and spurred the profession to discover a satisfactory substitute.

2. To Pusey of Chicago belongs the great credit of the discovery of the practical application of liquid carbonic acid gas in the form of snow.

3. Carbon dioxide snow is generally obtainable, inexpensive, can be indefinitely conserved and its successful application presents no technical difficulties.

4. It possesses the therapeutic properties of liquid air, and can be manipulated with more ease and accuracy.

5. It seems specially well adapted for the removal of vascular and pigmented nevi, tattoo marks and permanent disfigurements of a superficial character, and for the treatment of lupus erythematosus.

6. It seems also well adapted for the treatment of lupus vulgaris, common warts, epitheliomata, and various other cutaneous affections, but the results are still too tentative in character to definitely warrant it to be the method of choice.

7. Carbon dioxide snow commends itself to every dermatologist as a therapeutic agent of unquestioned value and merit, worthy of careful consideration and future study and destined to hold an indispensable place in successful dermatologic practice.

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WHAT TO PRESCRIBE AFTER STATIC FINDINGS.

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[Read before Eye, Ear, Nose and Throat Section of Ohio State Medical Association.]

I wish to discuss a subject which receives scant consideration in our text-books, usually dismissed by directing that — S. O. 25 D. be added to static findings to allow for infinity, as if all ciliary muscles were alike. I find practically that the average beginner in a clinic can get with javal, retinoscope and trialframe the correct static refraction in almost all cases after one or two months' work, while it will take one or two years to have equal skill in what to prescribe after static findings.

To consider the static refraction found when the pupil is dilated and the ciliary muscle paralyzed to be the exact clinical correction for the working physiological eye will often be found erroneous. When the pupil is dilated it allows the periphery of cornea to come into play which is usually more flattened and may be irregular. It allows periphery of lens into focus which is always more convex. These two facts usually neutralize each other but not always. Again when pupil is dilated it allows extra central rays to fall on the perimacular region which shows more hyperopia than macular region in hyperopic and emetropic eyes on account of the eye not being a perfect sphere. A radius taken from the nodal point through macular region will be behind the retina in perimacular regions. Again, in myopia, when you have a bulging backward towards the disc that region comes into play when pupil is dilated and may require stronger glass than macular region which alone is in focus in the physiological eye. A staphyloma of 1 M. M. would give 3.25 D. overcorrection. From this it can be seen there is danger of an overcorrection in both ways. A partial correction is always a relief, while a slight overcorrection is

always unbearable. To consider the static refraction found when ciliary muscle is paralyzed to be equivalent to physiological state of rest is correct only in small percent of cases.

Take a case of peripheral facial paralysis: On the paralyzed side you have the relaxation of paralysis, the lower lid falls away from eyeball; on the healthy side the muscle is at rest, but there is no such relaxation. Let us not get dogmatic and say the normal ciliary tone will never equal the paralytic in relaxation, for investigation will show that in myopic and myopic astigmatic eyes the ciliary tone is same as paralytic for distance unless there is spasm of accommodation. Atropine, homatropine, or any other cycloplegic gives different equivalents depending on refractive condition, whether myopic, hyperopic or astigmatic, age of patient, etc., all depending on the various degrees of normal muscular tone.

As an example: Take two boys, each twenty years of age, with same optical error, 2.75 D each, only one is myopic, the other hyperopic.

O. D. 6/60 6/60 + 11 — S. 2.75 D. 6/6 6/6
Atropine After

O. D. 6/6 — 11 6/60 + S. 2.75 D. 6/6 6/15

The myope sees 6/60, the hyperope 6/6 — 11. After atropine the myope sees 6/60 + 11— vision is improved. The hyperope now sees but 6/60. The same strength glass gives each eye 6/6 vision. Allow two weeks for recovery and put static correction on the myope, and he sees 6/6. The static correction is the physiological in myopia. Now put static on the hyperope and he sees not 6/6 but 6/15. Some authorities state that the difference between 6/6 and 6/15 is due to spasm of accommodation and must be made up by actual force. To my mind it has none of the characteristics of spasm of accommodation. If you wish to see typical spasm of accommodation place a — S. 1.00 D. before your own eye. You see 6/12, 6/9, 6/6. It comes and goes. It is spasmodic. The hyperopic boy never sees 6/6 or 6/9, and hardly 6/12. It is more or less constant and a large amount is due to normal muscular tone. It is pathologically latent, but is it physiologically latent? Some authorities would give — 0.25 Sph. off to be worn constantly while recovering from atropine. Is that a good thing? You can make all his hyperopia manifest by atrophy of ciliary muscle for want of use. You doom him to glasses for distant and close work all his life. If he loses them he is lost. You have produced an artificial anomaly of the short hyperopic eye without the vigorous ciliary muscle which goes with it. A strong ciliary muscle is never a hindrance, and it is of great

value later in life. The average E. has but 2.50 D. accommodation at fifty years of age, and has to have added + Sph. 2.00 D. to give him a C. P. of 22 C.M., but it limits his far point to 50 C.M. If this boy retained but $\frac{1}{2}$ a diopter in excess of normal accommodation he would require but 1.50 D. added, which would give him the same C.P., but would add 17 C.M. to his far point, bringing it to 67 C.M., which is very serviceable.

I wish to call your attention to the common mistake made in almost all our textbooks, when discussing what to add to distance correction in a myope of 2 D. reaching age of forty-five. They give the nice optical rules stating that all you have to add is + S. 1.00 D. to distance correction, or a — 1.00 D. for close, and patient goes on to fifty years without further help. This has not occurred in my experience. What are the facts?

Example: Miss M. Forty-four years. Homatropine. O. D. — S. 2.00 D. — C. ° 25 D. ax. 90 6/6 C.P. 36 C.M.

36 C.M. = 2.75 D., total accommodation of which at least $\frac{2}{3}$ or 1.50 D. can be used constantly. Add (as the books say) + Sph. 1.00 D. to distant correction and it gives you a C.P. of 27 C.M. and a reading range of 40 to 100 C.M., too far for a lifelong myope. You will have to add + S. 1.75 or 2 D. to distance correction for comfortable close work. This patient has been wearing — S. 1.25 for all work, which gave her 0.75 D. help for close work, but that was not enough.

What is the characteristic of ciliary muscle in myopic astigmatism?

Forty-four years. M. O. Homatropine. O. D. + S. 0.25 D. — C. 1.25 D. ax. 1.80 6/6. After, 6/6 — 1.

I consider this a case of myopic astigmatism as the latter is so predominating. Vision under Hom. 6/6. After recovery the static correction gave 6/6 — 1. The static correction is about physiological for distance in myopic astigmatism, thus resembling myopia. The close point with distance correction on was 25 C.M. = 4 D. acc., thus resembling the hyperopic in having good accommodation for close work.

What are the usual characteristics of ciliary muscle in hyperopic astigmatism?

Mr. Z. Twenty-two years of age. Musician. Has never worn glasses. O. D. + Cy. 1.25 D. ax. 90 6/6 — I. After recovery the static refraction was placed before the eyes and best vision was 6/9 — 11, showing the difference in ciliary tone from previous case. I added — Sph. 0.25 D. to each eye, still vision was unsatisfactory and very

annoying, nauseated her, etc. I then reduced the Cy. 0.25 D. with a good deal of comfort to her and ordered for each (eyes being the same) — S. 0.25 + Cy. 1.00 ax. 90. This patient came to me not for relief of symptoms, but for improvement in vision in reading music. She had never worn glasses, had been using astigmatic accommodation for years, and I find that less than static cylinder correction is much more comfortable, gives better immediate vision and much shorter period of adaption. I believe it is in such cases closer to the physiological for a year or two, when they may have to be changed.

Mrs. S. Twenty-four years.

O. D. 6/9. — 11. 6/9 111.

O. S. 6/6 — 1111. Hom. 6/5.

O. S. 6/6 — 1111. Hom. 6/15.

O. D. — S. 0.50 D. + C. 1.25 D. ax. 90 6/6.
After, 6/6 — 11.

O. S. + S. 0.50 D. + C. 0.75 D. ax. 90 6/6.
After, 6/9 — 111.

This case shows the difference in ciliary tone in mixed astigmatism in one eye and hyperopic astigmatism in other. Notice the difference in vision in each eye—first, then after homatropine was used, again after recovery and static refraction put on A. — S. 0.25 D. added to each eye would certainly give different equivalents.

Mrs. M. Thirty-six years. Homatropine.

O. D. + 0.75 D. + Cy. 0.75 D. axis 50 6/6.

O. S. + Sph. 0.75 D. + Cy. 0.75 D. axis 125 6/6.

This lady had been refracted in Baltimore, homatropine being used. She was given full static cylinder correction, but would not wear them. She was not of the temperament to persist and get the therapeutic effect. I ordered + S. 0.25 D. + Cy. 0.50 D. same axis, and she has worn them with entire relief for two years. We must be physicians. I find it advisable in persons who have not worn glasses when the + cylinder is over 0.50 D. and axis oblique that less than full static correction is much better tolerated and glasses more apt to be worn than if full optical correction is ordered at once, always with the understanding that they may have to be changed sooner.

Thirty-four years. Salesman.

O. D. 6/60. Hom. 6/12 + 11.

O. S. 6/21. Hom. 6/9 — 1.

O. S. 6/21 6/9 — 1.

O. D. — S. 0.50 D. — C. 0.50 D. ax. 90 6/6.

O. S. — S. 0.25 D. — C. 0.50 ax. 180 6/6.

This man was wearing — S. 1.75 D. in each eye which gave him V. of 6/9 + 11 in each eye, but

at the expense of spasm of acc. which was incapacitating him. He could wear them not over one-half hour when he felt (as he expressed it) as if he was going crazy. When he took them off the spasm persisted, reducing his sight so that distant vision was unsatisfactory. The marked improvement in vision after homatropine was used showed that. He was ordered the static refraction and told to report in one week. I was rather expecting that the spasm of ciliary muscle might return after recovering from homatropine, but it has not up to this time, one year after.

Mrs. D. Forty-seven.

O. D. 6/12 Homatropine 6/12 — 11.

O. D. + S. 1.00 D. + Cy. 0.25 ax. 90 6/6.

After recovery she could see 6/6 — 1 with static refraction. This is a case of hyperopia with it all manifest, which is rare even at forty-seven years of age.

Forty-five years. Mrs. W.

O. D. 6/9 + 1 — 1 Hom. 6/60.

O. D. + S. 2.50 D. + Cy. 0.25 D. ax. 90 6/6.
After, 6/12.

The S. M. refraction was one diopter less. Herz is a patient at forty-five years of age with so-called latent hyperopia of 1. D. Is not a large part made up in ciliary tone? This patient had close point of 25 C. M., so distant glasses were used for all work.

Thirty-four years. Mrs. S.

O. D. 6/6 — 111.

Patient refracted without a cycloplegic five years ago, when she was given — Cy. 0.50 D. ax. 180 in each eye. Now she sees 6/6 — 1 with glasses, but cannot wear them long for distant or close work. Homatropine used.

O. D. + S. 0.50 + Cy. 0.50 ax. 90 6/6.

The glasses ordered without a cycloplegic being used allowed her to use 1 D. acc., which threw the cylinder into the minus at opposite axis. The glasses to correct this astigmatism always required an extra expenditure for distant and close work of one diopter of acc.

I realize the importance of giving full details in each case of methods of administration of homatropine, but time will not allow and I shall content myself with a few important points.

I formerly used homatropine in watery solution 1 to 40, one drop in each eye every ten min. for six doses, restricting its use to patients over twenty-one years of age. In some cases with sensitive eyes as soon as one drop touched the globe spasmodic contraction of lids would occur, leaving but small uncertain amount of the 1/40

of grain for absorption; often after three administrations by this method the pupil would be but one-half dilated and patient could still use acc. enough to read fine print.

I now depend almost entirely upon oph. discs, each one contain 1/50 gr. Hom. Hydb. and Coc. Hydro., with gelatine for a base. One is placed on each eyeball and lids closed over. The process is repeated in twenty minutes. Later one or more drops of watery solution may be used, depending on age, etc. In patients over thirty-five, usually one disc is used, followed later by one or more drops. By use of discs you get more exact dosage. Fifteen minutes after first dose the acc. is gone, so far as reading is concerned. I always wait for at least one hour before any attempt is made at refraction. The best way to apply the discs is to wrap small amount of cotton on an applicator, moisten it so disc will adhere, and use it as a carrier to eye. I do almost all my uncomplicated cases of refraction by this means, ages ranging from fourteen to forty-five. In older people one or two drops is often of great help, especially in cases of mixed astigmatism and cases of low hyperopia with astigmatism.

I always do a post myd. three days after homatropine is used, and can hardly overestimate its value in confirming previous results as to the axis of cylinder and giving an idea of ciliary tone. I have not mentioned condition of external ocular muscles, as I considered the subject too broad for this paper.

THE FAUCIAL TONSILS.

S. H. LARGE
Cleveland, Ohio.

[Read before the Cedar Point meeting of the Ohio State Medical Association, August, 1907.]

"Tonsils," says Harrison Allen, "are an association of diverticula developed from the epithelial layer of the mucosa, in the walls of which are grouped muciparous glands and lymph follicles." The faucial tonsils are oval in shape and situated between the palato-pharyngeal and palato-glossal muscles. Their blood supply comes from the facial artery by the tonsillar and ascending palatine; from the lingual by the dorsalis lingual; from the external carotid by the ascending pharyngeal, and from submaxillary by the descending palatine branch.

Relation of tonsil to large vessels of the neck: The internal and external carotids, internal jugular vein and pneumogastric nerve passes through the posterior portion of the pharyngo-maxillary

interspace, while the tonsil occupies the anterior space. Thus it can be seen that with cutting instruments it is impossible to cut these vessels unless there is some anomalous distribution. The lymphatics of the tonsil empty into the lymphatic glands near the angle of the lower jaw and into the superior deep cervical glands.

You will pardon me for burdening you with the preceding minute description, but we must understand thoroughly the anatomy and histology of normal tonsils before we begin to study the abnormal.

The healthy tonsil should cause no inconvenience. In the young it is soft, but gradually becomes harder, due to increase of the connective tissue, and begins to atrophy in middle life. What we have to deal with is the diseased tonsil, and whether it is large or small makes no difference as to the trouble it causes. I will not try to discuss in this short paper the different kinds of inflammation of this organ, but confine myself to the dangers of the hypertrophied and diseased submerged tonsil.

When we consider that there is a rarefaction of the epithelium constantly going on, even in health, and much more in disease, we can easily see how different bacteria may gain entrance into the system through this thin barrier. In the hypertrophied tonsil we may have hypertrophy of the lymphoid elements or of all the tissues. It is much more prevalent in children and middleaged adults. Meyer found that 1 per cent. of the children of Copenhagen had this affection.

I will only mention the more important symptoms and affections, of which the first and most prominent is the mouth breathing, with all its associated changes in expression, pigeon and funnel breasts, narrowing of superior maxillary, night terrors, stupidity, headache, enuresis, impaired hearing and others too numerous and well known to you to enumerate.

Children with hypertrophied tonsils take cold easily, are more liable to diphtheria, tonsillitis, simple or follicular; also rheumatism and tuberculosis; enlargement of cervical glands, which may become tubercular from infection gained through the tonsil, is not uncommon. The profession is beginning to recognize the frequent relation between rheumatism or tuberculosis and diseased tonsils.

The salient point I wish to bring out in this article is the great necessity of removing the hypertrophied and diseased tonsil, and when we say tonsil we mean not only the faucial, but the pharyngeal and lingual. In conversation with one of our leading surgeons he made the remark

that there is no operation in surgery that gives better and quicker results than the removal of hypertrophied and diseased tonsils.

There are different methods for their removal, electric cautery, caustic applications, or excision with knife, scissors or guillotine. In children, when the organs are real prominent, I think the use of either Mathius' or Mackenzie's tonsillotomy or cold snare is the best procedure. For removal of pharyngeal tonsils permit me to recommend the St. Clair Thomson attachment to Gottstein currette. In the adult and in children where the faucial tonsils are submerged the best operation is the dissection either with knife or scissors. I have here numerous instruments used by operators but I have been using a pair of long-nosed tooth forceps and a scapel.

As to the anesthetic, I always use a general anesthetic in children, either nitrous oxide with oxygen, ethyl chlorid or ether, but never chloroform on account of its high mortality in these operations.

In the adult I give them their choice between nitrous oxide or cocaine anesthesia. In performing the operation with the latter you must inject hypodermically your solution of cocaine and adrenalin chloride as well as applying it locally.

In conclusion let me impress upon you the importance of the recognition and eradication of this most serious affection, and in this we should do all in our power as individuals and as a society to bring this subject before the general practitioner, the parents, the teachers, and the school officials.

DISCUSSION.

A. B. Thrasher, Cincinnati: I was glad to listen to Dr. Large's interesting paper. I would suggest that possibly a little change might be made in our minds in reference to one or two points. One is in reference to the time of atrophy of the faucial tonsil in health. He said at middle life. I think the doctor will find the tonsil begins to atrophy with the advent of the permanent set of teeth. That is, it begins at six years of age, although not noticeable until twelve or fourteen. It seems that when the salivary organs are perfect, which occurs with the advent of the permanent teeth, the tonsils lose their usefulness. I do not think they wait until middle life, although it occurs more rapidly later. So that if the tonsils remain large after six they should be removed as useless and in the way, acting as a foreign body.

In reference to the anesthetic for tonsillotomy, I think, as a rule, we should use general anesthesia. I prefer myself nitrous oxide in conjunction with ether. Nitrous oxide is sufficient in a simple case with the Mackenzie tonsillotome, but you should not use a fork tonsillotome under a general anesthetic. If you desire to pull the tonsil out more prominently do it with a pair of

hand forceps and then cut it off. In most cases of submerged tonsil I think the writer is right in using a bistoury. You bring the tonsil into view by pulling it from its bed. In those cases of adhesion to the pillars I think it is well to forcibly break up the adhesions before attempting to remove the tonsil.

I am glad he mentioned the chain of evils which so rapidly follows upon the presence of these tonsils. The obstructions and difficulties they give rise to are not thoroughly understood. I have had referred to me a number of cases of chronic rheumatism in which no cause could be discovered, but in which there was some deep trouble in the lacunae of the tonsils, and on removing this the rheumatism has disappeared without further treatment, pointing in the direction the doctor has suggested that chronic rheumatism is produced by ptomaines absorbed from an inflammatory condition at the bottom of these glands.

H. D. Rinehart, Dayton: In the removal of the faucial tonsil we probably each one of us become more expert by the simple method we use. I have found the tonsil is never so small but that if diseased it is necessary to come out; nor never so small nor never so submerged or adherent; but what I can remove it with the snare which was originally the "Peters" snare and now modified by the suggestions of Dr. O. Tydings and called "Tydings-Peters" snare. The snare without the guard is the better. I never used the guard. I prefer local over general anesthesia, injecting cocaine and adrenalin through the pillar into the subtonsillar tissue. Then I like to dissect the mucous membrane from the pillars and as much of the mucous membrane from the tonsil as possible; so that when the tonsil is out, I have a flap of mucous membrane falling into the cavity. By this method I have quicker repair and less cicatricial tissue. I dissect superiorly, anteriorly and posteriorly, but seldom inferiorly. I take the forceps in one hand and a right-angled knife in the other. I dissect—hugging tonsil closely—until I am beyond the median line of the tonsil, and do it without any severe pain. I then put the snare over and past the middle line of the globe of the tonsil, and with a tonsil forceps draw tonsil taut and well out of its bed, and then cut slowly. If I cut quickly, I leave some of the tissue in the cavity. If I take thirty seconds in closing the snare, I have the cavity cleaned out, and not a particle left back. I have sometimes cut a little too fast. The snare must have time to slip back over the tonsil.

Francis W. Blake, Columbus: I wish to say a word in favor of a technique I have found almost uniformly efficacious, and that is the use of the Ingalls forceps in connection with the snare. Probably most of you are familiar with the instrument. Both blades of the forceps are alike, curved to slip behind the tonsil and lift it from its bed, and notched to form a pedicle by compression. After freeing any adhesions to the pillars, the forceps are applied, one blade below and the other above the tonsil, pressing firmly against the outer wall of the fauces. The smooth, rounded edges of the blades will not pinch up the tissue, but will push in between the body of the tonsil and the wall, and on closing will form

a compact pedicle, facilitating the application of the loop of the snare and a complete removal of all tonsillar tissue. The corners of the blades should be curved and rounded to most readily guide the loop into position. In the case of large, hard tonsils, this method works to perfection, and in the case of soft and ragged tonsils, Freer's modification of these forceps, having a doubly notched edge, will be found advantageous.

Royce D. Fry, Cleveland: I want to emphasize Dr. Rinehart's method of dissecting the tonsil out or removing it with its capsule. I have been using that method for the last fifteen years, and the language in which I would describe it would be almost the same as the doctor has used. There are one or two points that he did not bring out. Where I have vessels coming in from the wall in the upper part of the tonsil, which are sometimes present, you get considerable bleeding, and I have been in the habit of using a long-jawed, very small tipped hemostat, and instead of cutting the vessel I pull them off from the tonsils, making the traction toward the side of the fauces, and in those cases where there is a good deal of bleeding from cutting the mucous membrane I twist these vessels before letting go of them with the hemostat.

Dr. Large (closing): Dr. W. Thrasher says he uses nitrous oxide with ether. Dr. Teter devised an apparatus for giving nitrous oxide that we use in Cleveland, by which the nitrous oxide can be forced through the nose and you can keep the patient under as long as you like. Dr. W. Thrasher also mentioned about the forceps. I have my assistant place his hand on the outside and force the tonsil into the throat, thus making it prominent.

What I wanted to bring out today was the importance of recognizing and removing the submerged tonsil. The patient goes to the family physician, he looks into the throat and if he does not see the tonsil protruding into the throat, he says it is a healthy tonsil. These are the tonsils that give us the most trouble in cases of rheumatism and tuberculosis.

Dr. Babcock, of Chicago, made the statement that in heart lesions in children, he could trace fifty per cent. to diseased tonsils.

Dr. Rinehart spoke about the different operations. Every man has his own operation. One man will use one instrument and do it well, and I do not think there is much preference in the operations; the question is to get the diseased tonsils out. The doctor spoke of using this instrument (indicating) and not using the guard. The doctor will see that using the guard you can get much closer with your wire to the fibrous capsule. If the operation is done under local anesthesia you must inject it hypodermically, and you must sometimes inject through the anterior pillar.

Dr. Blake speaks of Dr. Ingals' forceps; they are very good, but Dr. Hubbard suggests that in using these forceps the catch is too tight; that there should be more ratchets. You have got to hold the forceps too tight. I can see that that would be an advantage. I believe what Dr. Fry says in regard to the operation in diseased tonsils. If you dissect out the capsule you will get less hemorrhage than in cutting through the tonsillar tissue.

Dr. Blake speaks of a light on the end of a tongue depressor. The blood gets on the light and I would rather use a head mirror or electric head light.

THE DIAGNOSTIC SIGNIFICANCE OF ACUTE ABDOMINAL PAIN.

C. D. KURTZ, M. D.,
New Philadelphia.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

Many cases have consulted me during the last few years giving a history of repeated attacks of acute abdominal pain, occurring at intervals, during a period of months or years. The greater number of these cases have gone from one physician to another and the usual diagnosis has been "bilious attack," "indigestion," "gas in the stomach" or "neuralgia of the stomach." In examining the case I usually find a tender gall bladder or appendix, symptoms of ulcer of the stomach or duodenum or some other serious condition to account for the pain. I have also attended a number of patients ill with attacks of appendicitis or acute cholecystitis in which a previous diagnosis of gastralgia or bilious attack has been made. Was recently called to see Mrs. J—, age about thirty, married; found her suffering intense pain in the epigastric region with nausea and vomiting, examination showed a very tender appendix; this patient passed through a typical attack of appendicitis, lasting five or six days, during which a mass could be palpated at McBurney's point. She refused operation, and two months afterward the appendix remained quite tender. This patient stated that she had a number of similar attacks during the past two years which her attendant diagnosed as biliousness and indigestion.

The point I wish to emphasize right here is, that the majority of cases of severe acute abdominal pain in the adult are due to some serious lesion, and not to indigestion, flatulence or intestinal colic. In the young child the opposite is true as most cases of acute pain are due to intestinal colic, the result of indigestion. However, the child should be carefully examined, as it may have some of the diseases to which adults are more liable, as appendicitis or renal calculus. Any case of severe abdominal pain may be accompanied by nausea and vomiting, and I think this feature often leads to an erroneous diagnosis of indigestion, or bilious attack, when some more serious condition is at the bottom of the trouble. Regarding the

cases of gastralgia I will say that in almost seventeen years work I have not observed a case of so-called gastralgia that was not due to gallstones, inflammation of the bile ducts, or gastric ulcer. In making this statement I will except cases of gastric crises due to locomotor-ataxia.

Acute abdominal pain is usually one of the earliest symptoms of acute appendicitis, and in most instances the pain is referred to the epigastric at first, but later will tend to localize itself in the right iliac region. Other symptoms are usually present, as tenderness, muscular rigidity, etc., which will serve to distinguish an uncomplicated appendicitis from other painful conditions within the abdomen. The location of pain and tenderness is not always an index to the seat of trouble as will be noted in the following instance: I was called to see J. M., age about twenty-four; he had been ill ten days, his doctor having made a diagnosis of appendicitis; after an examination, I confirmed the previous diagnosis. There had been a typical history of appendicitis, and I found him quite septic and with muscular rigidity and tenderness at McBurney's point, and some tenderness in region of the liver, although not so pronounced as in the right iliac region. An oblique incision revealed an entire absence of cecum and appendix in the right iliac fossa and no sign of disease, the peritoneum appearing perfectly normal. Under the inferior edge of the liver (which was somewhat lower than normal), I found a mass of adhesions. I immediately extended the incision upwards, and walled off the peritoneal cavity with gauze, and on breaking up the adhesions, an abscess cavity was opened, giving vent to about a pint of foul pus and necrotic tissue. I did not see anything of the appendix, but a piece of tissue having a tubular structure, and perforated in several places, was found in the dressings on the third day. In this case the history of pain, tenderness and muscular rigidity were characteristic of a severe attack of appendicitis in the usual situation. I have knowledge of a number of cases of appendicitis, in the later stages of which some of the patients developed symptoms of subphrenic abscess, and others, symptoms of acute cholecystitis. In these cases there was pain and tenderness in both the right iliac fossa and also in the region of the gall bladder, or the diaphragm.

Perityphilitis without appendicitis is of rare occurrence, and will give rise to acute pain and other symptoms of appendicitis, a differential diagnosis without operation being practically

impossible. In acute cholecystitis severe pain in the epigastric region is one of the most prominent symptoms. The same may be said of perforating gastric or duodenal ulcer. In acute inflammation of the gall bladder other symptoms will be present, as tenderness at the outer edge of the rectus at about the level of the ninth costal cartilage, with rise in temperature, and in fact symptoms of acute inflammation, while if gangrene or perforation takes place, there will be a rapidly developing peritonitis and the symptoms will become proportionately serious. In perforating gastric ulcer, there will have been a history of stomach trouble for some time, with symptoms pointing to ulcer. The peritonitis following perforation of gastric ulcer will be likely to be less rapid and severe in onset than that resulting from perforation of the gall bladder, by reason of the difference in the contents of the stomach and of a diseased gall bladder. In perforating duodenal ulcer, the past history of the case may point to the source of the trouble, but often a correct diagnosis is impossible. Impaction of a stone in the common duct will often cause severe colic, but jaundice will soon occur, which will direct attention to the bile tract, as being the seat of the trouble. A case of acute cholangitis occurring, either with or without gall stones, will give rise to colic, and the history and symptoms will be about the same as when the trouble is due to gall stone obstruction. Malignant disease implicating the common duct will rarely or never give rise to colic.

In acute intestinal obstruction severe abdominal pain of more or less sudden onset is a prominent symptom, common to all forms. The pain is at first intermittent and colicky, but soon becomes continuous, as the obstruction becomes complete. Pain may be general at first, but will usually be more severe at point of obstruction. Other symptoms soon come on, as vomiting and constipation. The vomitus consisting of the stomach contents at first, followed by bile and later by fecal matter. An enema may move the bowel below the point of obstruction, but afterward the constipation will be absolute. Additional symptoms will be collapse, face pale, and with an anxious, pinched expression; skin covered by a cold sweat, temperature normal or subnormal, with later a rise due to beginning inflammatory action. Vomiting will be a more prominent feature in obstruction of the small intestine, than when the trouble is located in some part of the colon. If obstruction is caused by fecal impaction a doughy mass may be palpated at seat of obstruction, and a high

enema will often clear up the condition. The hernial orifices should be carefully examined in every case of acute abdominal pain with obstructive symptoms. In internal hernias, the obturator, and those due to protrusion of intestine through a slit in the mesentery, strangulation by bands of adhesions, Meckel's diverticulum, intussusception or volvulus, the symptoms will be those of intestinal obstruction in general, of which pain is one of the earliest and most prominent. The same may be said of tumors, strictures, enteroliths, gall stones, and foreign bodies. Gall stones, tumors, enteroliths and foreign bodies, if large enough to produce obstruction, may be palpated in thin subjects. In structures the obstruction will come on more gradually and the history may point to the cause of obstruction. In intestinal paralysis, due to thrombosis of the mesenteric arteries, pain and obstruction symptoms will begin very early, and the grave condition of the patient will be such as to warrant early surgical interference. In intestinal paralysis following coliotomy or due to septic peritonitis, pain and obstructive symptoms will be present, but the history of the case should lead to a correct conclusion. Acute obstructions occurring in the large intestine are most frequently located at the ileocecal valve, or in the sigmoid flexure, but may occur in other portions. Pain is a leading symptoms, but vomiting will not begin so early or be so frequent as with obstructions of the small intestine. Other symptoms are tympanies, gurgling and possibly stools consisting first of fecal matter below the obstruction, followed by discharges of blood and mucus. Tenderness and a tumor may be outlined at point of obstruction.

Acute abdominal pain is a prominent feature of the so-called Dietl's crisis in movable kidney, and the kidney may often be palpated, especially if hydronephrosis be present. Sudden relief of symptoms occurs if the kidney is replaced, and the kink or twist in the pedicle is reduced. Other symptoms as nausea and vomiting, also chills and fever, may be present, the latter especially if infection has occurred. The tumor in movable kidney may be pushed up into the kidney region; on the other hand a tumor of the intestine, mesentery, ovary or even a distended gall bladder cannot be made to disappear into the renal fossa in the same manner as a movable kidney. Movable kidney may be only part of the condition known as splanchnoptosis, in which all of the abdominal viscera are more mobile than normal, and pain occurring in such

a case might cause considerable trouble in diagnosis.

The pain in renal colic is severe and usually of abrupt onset. Possibly the previous history, with location of the pain in the region of the kidney or ureter, radiating to the bladder, or testicle in the male, and the discovery of blood in the urine may lead to a correct diagnosis. Pus may appear in the urine if the case is of long standing.

Acute pancreatitis is of sudden onset and violent pain in the epigastrium is the principal symptom. Other symptoms are collapse, nausea and vomiting, chill and rise of temperature, tenderness and swelling may develop if patient does not die within the first 36 or 48 hours. The facial expression is indicative of serious abdominal lesion. Many of these cases die within 24 or 36 hours and a correct diagnosis is not often made except post mortem. One Thursday evening last year, a young man came into my office in a condition which is most aptly expressed by saying he was about two-thirds drunk. He complained of severe abdominal pain, his history showed that he had been operated upon in a Pittsburg hospital for appendicitis about six weeks before. He stated that he had come to town a few days before and was working at his trade in a local printing office. About half an hour before coming to me, and while drinking in a saloon with his friends he had occasion to sneeze, this was followed by severe pain. Examination showed some tenderness in the epigastric region and a rapid pulse, temperature practically normal, and a well healed appendectomy scar in the usual situation. I did not place much reliance upon his statements and not wishing to give him an opiate in his intoxicated condition, I advised him to go home and go to bed, this he promised to do. The next morning (Friday) on my way to the office, I met him coming out of a saloon, and on inquiry as to how he was, he stated that he was better and would come to see me in the evening. On Friday evening he called another doctor to his boarding house, and as he was suffering considerable pain the doctor gave him two hypodermic injections of morphine about three hours apart. The family at the boarding house heard him moving about during the night, and he was found dead in his bed in the morning. The doctor called me to attend the autopsy Saturday morning. The region of the appendix was normal with stump in good condition, heart and lungs, also brain normal except for chronic changes due to alco-

hol. Abnormal organs all normal except pancreas which was in a state of acute hemorrhagic inflammation.

Twisting of the pedicle of an ovarian or dermoid cyst will give rise to pain, but the presence of the tumor should clear up the diagnosis.

Rupture of an ectopic gestation sack is accompanied by sudden severe pain in the lower abdomen. The other symptoms are fainting, rapid, feeble pulse and signs of internal hemorrhage. The irregular menstrual history, changes in the breasts and other symptoms of pregnancy may be present if the condition has existed long enough. Bimanual examination may reveal a mass to one side or behind the uterus. In dysmenorrhoea the presence of the menses and history of previous attacks will distinguish this from more serious conditions causing abdominal pain.

Perforation of the intestine by typhoid ulcer occurs usually during the third week, and in almost all cases the first symptom is sudden acute abdominal pain, followed by muscular rigidity, tenderness, collapse, weak and rapid pulse, and possibly vomiting, later a rapidly developing peritonitis. The previous history should point the way to a correct diagnosis.

In acute cystitis, acute prostatitis, and in vesical calculus the pain may be considerable, but the patient will refer to the urinary organs, and there will be turbid or blood urine and other symptoms calling attention to the location of the trouble.

In acute pelvic inflammations, the location of the pain in the hypogastric and pubic regions, should suggest an examination of the pelvic organs. This history may show a recent abortion, child birth, or possibly some recent instrumentation, as a source of infection.

The gastric crises of locomotor ataxia consist of severe pain with vomiting and perhaps diarrhea. The attacks may last several days. The history, presence of ataxic gait, areas of tactile anesthesia Argyl—Robertson pupil, lightning pains, etc., will lead to correct conclusions.

Pneumonia, pericarditis and pleurisy, particularly diaphragmatic, may cause pain in the abdomen, more frequently in the epigastric region. The symptoms of thoracic disease at the seat of the trouble and the absence of abdominal tenderness and muscular rigidity will usually serve to direct attention to the chest as being the part diseased. I have recently read report of a case in which there was pain, tenderness and rigidity in the region of the appendix, but operation disclosed a healthy appendix and signs of pneumonia developed within a few days; however,

such cases must be very rare and more in the line of curiosities.

Arterio-sclerosis of vessels in the splanchnic area will sometimes cause attacks of pain in the upper abdomen. These attacks last from a few minutes to half an hour, and may recur several times a day; this pain is often an accompaniment of angina-pectoris. Presence of other signs of arterio-sclerosis, absence of prostration, tenderness and muscular rigidity will differentiate this from other abdominal pain.

In acute lead poisoning the pain is intermittent of greatest intensity in the region of the umbilicus. It may be accompanied by diarrhea and vomiting, or bowels may be constipated, temperature normal or subnormal, no symptoms of collapse; inquiry may show a source of infection.

Acute arsenical poisoning will show a symptom complex somewhat as follows: Dryness of mouth and throat, thirst, intense abdominal pain, vomiting, diarrhea, perhaps bloody stools, scanty or bloody urine, and without a rise in temperature at first. The history or environment of the patient may point to a source of infection or possibly suicidal attempt.

Intestinal colic in the adult is due to acute indigestion, and is accompanied by vomiting and diarrhea. The pain is never so severe as that due to renal colic, gall stones, acute appendicitis, etc. The matter vomited and passed by stool will contain considerable food stuff that has not been digested.

In conclusion I would emphasize the importance of making a careful examination in every case of acute abdominal pain.

DISCUSSION.

Dr. Smith, Cincinnati: I have listened to this paper with some interest, and the doctor has quite fully covered the ground. About a year ago I looked up the subject along practically the same lines, and I recall now that he has left out one thing, and that is reflected pain along the lines of the nerves coming from the vertebral column. Some cases of epigastric pain have been associated with a malignant growth of the column.

The doctor brought out a point that should be emphasized, that careful examination, complete and thorough, for the cause of pain in the abdomen, is the key-note in these cases.

Dr. Kurtz, closing discussion: The point Dr. Smith brought out I thank him for. I never had observed a case of that kind and it never had been brought to my attention. I would like to say in conclusion that there are possibly a good many cases of abdominal pain when it is impossible to make absolute diagnosis. That is why there are so many exploratory operations in the abdomen.

ANISOMETROPIA.

WILLIAM EVANS BRUNER, A. M., M. D.,
Cleveland.

[Read before Ohio State Medical Association, Cedar Point, 1907.]

We all meet frequently with cases of anisometropia and realize that some of them are difficult to handle. I do not come with anything new pertaining to this condition but do wish to make a plea for more frequent and greater effort in the care of these patients to preserve or to increase the usefulness of the more defective eye.

The term anisometropia strictly includes all cases in which there is a difference in the refraction of the two eyes. Landolt says, "Anisometropia exists whenever the two eyes demand, in order that each shall possess its maximum of visual acuteness or in order to present to the observer the same clearness in their ophthalmoscopic images, two different numbers of spectacle glasses." We apply it here, however, only to those cases in which there is a decided difference in the refraction of the two eyes, either in kind or in amount. Some writers distinguish between anisometropia and antimetropia, using the former where the kind or type of error is the same, and the latter where one eye is hyperopic with or without astigmatism and the other myopic with or without astigmatism. We include both types under the title of this paper. Various combinations of this condition may exist—one eye may be emmetropic and the other have a considerable error of refraction of any kind; both eyes may have the same type of refractive error but of unequal degree; or they may represent the true cases of antimetropia.

The condition is usually congenital, though there are certain acquired types as in aphakia, after removal of the lens from one eye. An incipient or developing cataract by reason of the changes which take place in the lens from swelling with resultant myopia may produce anisometropia more or less variable in amount. A corneal scar or macula will frequently produce an high astigmatism and may lead later to the development of myopia in that eye. Conical cornea frequently leads to anisometropia. Numerous cases might be given to illustrate the various acquired forms of this condition, for in many of these patients both eyes may be successfully corrected with benefit and comfort to the patient. I purpose confining this paper, however, almost exclusively to the congenital form, nor have I included that rather large group of cases

of antimetropia in which each eye has only a slight error of refraction, as they present nothing of unusual interest or importance and accept the proper lens for each eye, without any difficulty and with marked relief of symptoms. Occasionally, however, we find patients who have difficulty wearing glasses which correct even a small amount of anisometropia, much more difficulty in fact than the average patient who has a marked difference between the two eyes. I have also largely omitted those cases in which the error is so great in one eye, as for example a very high myopia, that any attempt to correct it is out of the question; and also those cases in which the highly refractive eye is so amblyopic that a glass for it is entirely useless, or if I have corrected it, the patient still continues to use one eye as before and the result would have no bearing upon the general subject under consideration. I have also omitted a large number of patients from whom I have obtained no report as to the result of the treatment.

Not infrequently in these cases we find some asymmetry between the two orbits or even between the two sides of the head. Donders endeavored to ascertain some relation between the two conditions, but did not succeed. "I can only in general maintain," he says, "that at the side where the strongest refraction, or rather the longest visual axis, occurs, the orbit and with it the eye' is situated closer to the median line, while its surrounding edges are placed more forward." "There is," he thinks, "a connection between the two, but that the connection is not absolute is not strange, for just as with differing form and position of the orbits the two eyes may be emmetropic, it must be possible that equality of the eyes should exist with difference of the orbits of the same individual." There is frequently supposed to exist some relation between inequality of the pupils and inequality of the refraction of the two eyes. Frenkel (*Annales d'oculistique*, October, 1906,) after a study of five years including 5000 cases, found only 10 cases in which anisocoria and anisometropia were associated. Of these 6 had the larger pupil on the side of the greater ametropia and 4 on that of the lesser. The larger pupil corresponded to the higher refraction, (i. e. more myopic or less hyperopic) in 5 cases. He concludes that, "Nothing justifies the assertion that certain cases of pupillary inequality depend upon an inequality of the refraction; nor that the larger pupil corresponds most often to the side of the greater ametropia; nor that it corresponds, with any greater frequency, to the side of greater refraction and,

finally, there is no scientific reason for admitting any sort of relation between anisocoria and anisometropia."

These cases of anisometropia may be arranged into three groups:

1. Where one eye only and always the same one is used, and the other is permanently excluded, whether the vision of the other eye may or may not be improved with a glass.

2. Where good vision may be obtained in either eye and the patient may be able to use either eye separately but binocular vision is lacking.

3. Where binocular vision can be obtained.

In the first group are found many of the neglected cases of anisometropia, cases for which something could have been done in childhood, but when we see them later in life there is a marked amblyopia of the one eye, the patient is getting along comfortably with the use of the other eye and is unwilling to give the time and trouble to train the defective one, even if assured that eventually he might obtain useful vision with that eye. In many of these cases, however, training would accomplish little or nothing, and even if by long training some improved vision might be obtained, binocular vision would still be lacking and never could be attained. If the case is seen in early childhood, much can sometimes be done for it. If the child's eyes are such that even the good eye is in need of a glass or it is evident that he will need help for that eye before he gets much older or progresses far in school, the sooner we correct his eyes the better; and we should then correct the more defective eye as near the full as possible and at once start exercising it, if the vision is defective, and as the vision improves also institute training of the fusion sense as in a case of strabismus. This condition of anisometropia will be found in not a few cases of strabismus and this same line of treatment will be important for the correction of the strabismus as well as the improvement of the defective vision.

The second group includes those patients who may see with either eye alone but do not obtain binocular vision. Even in the absence of binocular vision, not a few of these patients prefer to have both eyes corrected. Some of this group of course could be helped if seen in early childhood when the fusion sense might be trained and binocular vision obtained. If in a young person one eye is almost emmetropic while the other has an high error of refraction and the patient has no symptoms whatever from the eyes and it is probable that he may never need glasses

for the good eye until he becomes presbyopic, or if the more defective eye is moderately myopic so that he may by using it for reading never need glasses even at the presbyopic age, it is questionable whether it is necessary or wise to inflict such a person with glasses all his life when he may be as comfortable without them. If we should adopt such a plan, the patient should of course be kept under observation from time to time. Should any defect develop in the good eye or should the patient begin to have any disturbance, ocular or reflex from eye strain or should an imbalance of the muscles indicate possibly a developing strabismus, it would of course be necessary to correct the two eyes at once. Some persons go through life using one eye for distance and one for close work with perfect comfort, while any attempt to correct this inequality and make the two eyes work together causes them much annoyance and discomfort.

The third group includes those patients who with the proper lens before each eye obtain binocular vision. It is in this class of anisometropic patients that we obtain our most satisfactory results. The earlier in life the attempt is made to correct the two eyes so that they may work together, the more easily will they do this and with so much the less annoyance or actual discomfort to the patient. Some adults though obtaining excellent binocular vision will not possess the necessary patience to endure the annoyance which is frequently inevitable in attempting to make two eyes work together, which have never done so or have done so only very imperfectly, and some few persons even after a fair trial will be compelled to give up the attempt. In my own experience these patients are rare, only three in 113 cases, and most of them fail not because success is impossible but because they lack a little persistency.

We do of course meet some patients with anisometropia who never can obtain complete comfort and especially is this true if the patient is also a marked neurasthenic, and yet this is not surprising, as we unfortunately all meet occasionally with patients possessing only a small error of refraction whom all the efforts of all the many oculists whom they consult fail to relieve of all eye strain or to enable them to use their eyes to any extent. We must be on our guard in such cases not to overlook some cause other than the eyes which is producing this asthenopia as, for example, some pathologic condition in the nares or sinuses, gastro-intestinal disturbance or some uterine or ovarian trouble.

The condition of the muscles in anisometropia

is interesting and the study of them important. The proportion of cases with muscle imbalance is as we would naturally expect higher than in patients whose eyes are more nearly equal. Any type of imbalance may be found and the amount may vary from a slight degree to a well marked squint, and very frequently we find a combination of a vertical with an horizontal imbalance. Duane has given a careful analysis of his cases. In regard to the presence of hyperphoria which is thought by some to occur with special frequency in anisometropia he found 15% of the cases of low anisometropia and 32% of the cases of high anisometropia had an hyperphoria of one degree or more. In 103 cases of my own where the vertical muscle balance is given there is:

Orthophoria	70%
Right hyperphoria	22%
Left hyperphoria	8%
Total number of cases of hyperphoria	30%

As regards the lateral balance of the muscles my cases show:

Orthophoria	28%
Esophoria	45%
Exophoria	27%

Certain difficulties are encountered in these cases of anisometropia. Many writers speak of the different size of the two images through such dissimilar glasses. "In as much as the correcting lens placed at the anterior focus of the eye produces images on the retina of equal size in all forms of ametropia, no theoretical reason exists," says de'Schweinitz, "for not correcting both eyes." As Duane points out, "If the mere difference in size and appearance of the images is what gives trouble we should find in this an argument for rather than against the correction of anisometropia" and "by correcting it shall render of the same size the retinal images that before were widely unequal." He thinks in fact that this disparity between the retinal images constitutes one of the chief difficulties that exist when glasses are not worn and furnishes one of the main reasons for prescribing them.

Another and much more real difficulty is in the prismatic effect from the lenses which will set up a muscular asthenopia or even produce diplopia. Certain precautions must be taken to guard against this as much as possible. The glasses must of course be centered with great care and two pairs, one for distance and one for prolonged reading, even though alike may sometimes be advisable. When lenses of different strength are needed for close work there may be difficulty in ordering bifocals. In cases of anti-

metropia bifocal lenses as made by the average optician are usually wrong. With a convex lens for one eye and a concave before the other, and the ordinary segments placed upon these; on account of the location of the segments, there will be in the former lens the effect of prism base up and through the concave lens the effect of prism base down, with a resultant total vertical prismatic effect which will be most distressing to the patient and render the use of the glasses impossible. This can, however, be corrected by combining vertical prisms with the segments, base down in the segment for the convex lens and base up for the other segment, so as to bring the images as seen through the reading portions exactly on a line. This difficulty can be readily overcome by the old perfection bifocals, and of course no difficulty arises when we order a separate pair of lenses for close work. The lenses must be worn as close to the eyes as possible and in these cases, if anywhere we probably would be justified in trimming the eye lashes, as frequently advised by Gould, so as to place the lenses nearer the eyes.

In some cases as pointed out by Duane, "The patient finds difficulty in wearing glasses, not because the two lenses are different from each other but simply because they are strong and particularly because they contain strong cylinders." Another difficulty which he brings out is that the presence of a muscular deviation may be the cause of the patient's inability to use the glasses, but if the muscular condition is such that diplopia occurs, the glasses make matters worse by enhancing the distinctiveness of the two images.

The subjective symptoms arising from anisometropia are as varied as in other other errors of refraction and present nothing pathognomonic of the inequality.

In treating such cases, it is necessary to secure the full confidence of the patient, the condition must be explained to him with the difficulties which he will probably experience in trying to wear the glasses. He must be willing to endure some annoyance and even actual discomfort at first and must be both persistent and patient in wearing the lenses. By so doing he will usually become rapidly accustomed to the glasses, often within a week, though occasionally this process of adjustment will be much slower and will severely test the person's patience and their confidence in us and our own faith in our work.

It is needless to say that in the first place the refraction must be measured with extreme care, which of course means under thorough mydriasis,

even at an age when ordinarily we would not think it necessary to use a mydriatic. In such patients, except in small children, I always prefer to make a post mydriatic measurement before ordering the glasses, especially if for any reason I decide not to give full correction. After the measurements of the eyes have been made my object is to give as nearly a full correction as possible. If one eye is hyperopic and the other myopic I would not give an absolutely full mydriatic correction for the hyperopic eye, just as I would not do so if both eyes were hyperopic, for that would mean poor distance vision with the eye which is usually the better one for distance. Duane, however, even does this, at least in some of his cases. If both eyes are hyperopic, in order to preserve the difference between the two eyes and at the same time give the patient fairly good distant vision with the more hyperopic eye I will often deduct considerably more from the full correction than if both eyes were like the good one and then possibly later on or even at once, if necessary give another pair more nearly correcting the total error for reading.

Occasionally a patient cannot wear the full correction for the more defective eye at first but by beginning with a partial correction we can gradually increase the strength of this lens. At other times, however, we find that while they like a partial correction for the more defective eye, they are rendered uncomfortable when a stronger glass is tried. While I am a firm believer in the full correction of astigmatism, I find in these cases of anisometropia that it is sometimes necessary to give only a partial correction, especially at the start.

The question of the so called dominant eye may be as Gould suggests important in this condition. The two eyes probably learn to work together more readily when the dominant eye is the more defective, though there may be more discomfort during the training period. On the other hand when the dominant eye is the good one, there may not be as much discomfort or annoyance in wearing the new correction, but the patient is much more apt to continue using the good eye to the exclusion more or less complete of the other one. Gould (*Ophthalmology*, volume 1, page 12-14) in a paper on Dextrocularity and Sinistrocularity shows, "that the dominant eye will preserve its dominancy despite a considerably higher degree of ametropia than that of its fellow and that an ametropia in the non dominant eye which tends to throw it out of function is much more likely to result in non function of that eye. For this reason it may be

inadvisable to give the non dominant an exceptional or greatly superior acuteness of vision or in fact even an equal acuteness of vision. Nature will not respond to the attempt so willingly as in a similar attempt upon the dominant eye." In regard to the question which eye is usually the more ametropic Schulin says, "Cases of anisometropia which are not complicated with a great amount of astigmatism have the right eye less hyperopic or more myopic than the left," but Duane does not agree with him and finds in the study of his statistics in this regard that the two eyes are about alike. In 138 cases of non pathological anisometropia O. D. was more ametropic in 70; O. S. in 68, and in 60 cases of high anisometropia O. D. was more ametropic in 31, O. S. in 29. My own statistics would agree with those of Duane, as I found the higher refractive condition (higher myopia or less hyperopia) in O. D. 45, in O. S. 45. The greater error of refraction was found in O. D. 41, O. S. 40. The better vision was obtained in O. D. 32 times, in O. S. 31 times, the higher astigmatism in O. D. 34 times, in O. S. 25 times.

When there is some muscle imbalance we must not be too hasty to add prisms to our correction, as we find in some cases after the patient has worn glasses for a time the muscular difficulty will disappear. In other cases it may be wise to give a partial correction for the imbalance so that the patient will have less difficulty at first in getting accustomed to the glasses and then remove the prisms later if necessary. Gymnastics for the ocular muscles may also be advantageous in some cases, especially for strengthening the internal recti. Rarely an operation may be necessary.

In the final analysis of our cases we find that many patients who could obtain no relief without glasses, or with glasses which either did not recognize the difference between the two eyes or corrected it only partially, are relieved of their symptoms both ocular and reflex by the glasses which correct the inequality between the two eyes. My own statistics in this regard show in the 113 cases reported the following results:

No attempt made to correct the inequality	3
Tried and gave up the attempt	3
No help	2
Doubtful	3
Partial relief	11
Greatly benefited	91

Of the two patients not helped by the glasses, one has been an invalid, with a severe type of

neurasthenia, for years. She has tried glasses from several oculists, and while I was doubtful whether lenses would accomplish any good, I felt that they should be given a thorough trial. She wears them and is better with than without them, but they do not seem to have accomplished any particular good, either as regards the eyes themselves or her general condition. The other patient seemed to derive no benefit from the glasses, but later reported to her physician, a neurologist, that she had been cured by Christian Science.

Of the three cases with doubtful results, one was a great sufferer from headaches but it was very doubtful whether these were due to the eyes; another one simply reported that his eyes were still weak but he did not say anything in regard to the ocular pain and headaches and the third reports by letter that he is "hardly able to say whether or not there has been any change for the better."

Three patients tried the glasses and gave them up, one a man, age 56, tried them three months and then removed the lens from the defective eye and inserted a plain glass which he had worn before. Another a man, age 59, reported indirectly that he did not like them, but I never saw him after he had been wearing the glasses and I do not know how long or thorough a trial he gave them. The attempt was possibly unwise in this case. He probably should have been treated as were the three for whom I made no attempt to correct the inequality, or one eye should have been adjusted for distance and the other for reading as he had been using them all his life. The third, a man, age 24, tried them two months and then wanted the glasses made alike for the two eyes.

In conclusion therefore we are warranted I believe in making the plea urged at the beginning of this paper, that a greater effort be made in our cases of anisometropia to correct both eyes, as in so doing not only can many so called useless eyes be preserved from further deterioration of vision and be made to see and to share more or less in the work of the better eye, but the patient can be made more comfortable and relieved of ocular distress, headaches and other reflex disturbances.

DISCUSSION.

W. P. Chamberlain of Cleveland: The subject the speaker has brought to our attention is a practical one. It is a subject that is given too little attention in our medical associations and in text-books on ophthalmology. The tendency

is to discuss and report the rare things to the exclusion of the more practical.

What shall we prescribe after having determined the static refraction? This is the difficult part of refraction,—the part that requires judgment based upon experience. The determination of the static findings is more or less mechanical.

I think the speaker has done well to emphasize the fact that in determining refraction under a mydriatic we are not dealing with a ciliary muscle with normal tone, but with a paralyzed muscle, and that the tone of that muscle, when the effect of the mydriatic passes off, will depend upon whether the eye is hyperopic or myopic.

In cases of hyperopia and hyperopic astigmatism of moderate and high degree, in young patients, I think it is often better to make considerable reduction in the spherical correction, especially if the patient has never worn glasses. A person, for example, of twenty years, has static correction of plus 3.50 d. sph. O + .50 d. cyl. axis 90°. If there is no squint, I would not prescribe over plus 1.75 d. or 2.00 D. sph., with full cylindrical correction. At the age of twenty years there is an accommodation of 10 D., and with a ciliary muscle that is hypertrophied, he would be well able to take care of 1.50 D. of hyperopia. It is the astigmatism that usually causes the symptoms of asthenopia. The patient would probably need the strength of his lenses increased after a time, but I prefer to give them a glass at first that will relieve his symptoms, and that he will wear. As the age increases, of course a larger proportion of the hyperopia should be corrected. I have found regarding astigmatism that if the patient has never worn glasses and the cylinder is high, it is often advisable to make reduction in strength for first pair of lenses.

In myopic cases, the all-important thing is not to over-correct, causing a weak muscle to accommodate.

It is in the cases of mixed astigmatism that I am most at a loss to know what to prescribe. It seems as if each case must be considered by itself and that no general rule can be formulated. In cases where the hyperopia predominates I treat them as hyperopic cases, and so with the myopic cases, but find many cases that are puzzling. I trust some of the more experienced men will give us the results of their experience in this class of cases.

Dr. J. E. Cogan, Cleveland: Discussing Dr. Bruner's paper, talking of prisms where we have double deviation, it seems to me the lenses put on them are put on with rather erroneous impression.

Dr. Cogan then demonstrated on one of the charts used by him during the reading of his paper his ideas of the correction of this trouble. In closing the discussion he said:

Dr. Cogan: I think Dr. Clark has struck a very important point, and some day we will have to consider the normal size of the pupil under normal conditions as far as we can. That is important. I have never tried this thing, but I think some day it will be considered in what glasses to give.

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PROPOSED OPTOMETRY LEGISLATION.

At the last meeting of the Legislature a bill was introduced defining Optometry and proposing to license the practitioners of the same under certain regulations and restrictions.

It was represented to the Committee on Public Policy and Legislation that the Committee of the Eye and Ear Section of the State Association, appointed to consider the subject, approved of this measure, *faute de mieux*, as a means of regulating and restricting the present widespread illegal prescribing of glasses by opticians, and therefore, the bill was endorsed with some reluctance; and not without expressed misgivings by thoughtful members.

At the hearing before the Committee of the Legislature; however, it developed that many members of the specialty most interested were not in accord with the action of the Committee of the Eye and Ear Section, and appeared in numbers to oppose the passage of the proposed law.

The Committee on Public Policy and Legislation was placed in an extremely embarrassing position from the seeming division and uncertainty of the medical profession as to just what it did want.

The great preponderance of sentiment from physicians developed before the Committee of the Legislature, was strongly in opposition to the act proposed, and the recognition of this sentiment determined the disposition of the bill by the committee.

However, we may not suppose that the matter is thereby settled; but, on the other hand, it will come up again in the near future. It therefore behooves us to take counsel together and be prepared to act as a unit when the occasion requires.

At the meeting of the Association in May, 1908, the Eye, Ear, Nose and Throat Section, when considering the report of its committee, recorded itself unanimously as opposed to the passage of an "optometry" bill.

It has been claimed in support of the bill, that it would afford relief from many

present abuses; that many incompetent and unqualified opticians are fitting glasses, utterly contrary to law and greatly to the detriment of the public health; that by licensing "optometrists" these practices will be "regulated" (?); that only properly qualified experts will be permitted to fit glasses, and *they* only under the control of a state board partially or in a large part made up of representatives of the medical profession.

Theoretically these are cogent arguments and should appeal to the honest and unbiased observer whose main interest is the proper protection of the public. The more one ponders over the glittering prospects, however, the more one cannot help but wonder if it is not "too good to be true," and whether the solution of the problem will work out just as planned. Doubts assail one, until for the present it really seems better to "Bear those ills we have, than to fly to others that we know not of!"

As far as our profession is concerned we believe that a great and fundamental principle is at stake. As the President of our State Association tersely said recently: "The main question resolves itself into this: Is so-called optometry the practice of a branch of medicine, or is it not?"

If the fitting of glasses were merely dependent upon the laws of optics, the correction of errors of refraction would be purely mechanical; it would simply be a matter of the proper instruments for examination, and we should have no good grounds for objecting to anyone properly skilled in optics practicing this art. We know full well, however, that this is not the case; that elements dependent upon pathologic conditions, very often general as well as local, requiring a thorough and general knowledge of pathology and treatment, enter into the question. Optometry is undeniably a branch of the

practice of medicine and the proposed law is an infringement upon the medical practice laws now in force.

Further, how has a similar law worked for the cure of abuses in other communities? Take Indiana, for example, where the plan has been in operation for just a year. We wrote to a prominent physician of the State asking for information, and cannot do better than quote from his letter: "The Optometry Law is doing an immense amount of harm in this State. The opticians now call themselves doctors, and they do not have customers, but patients. They are advertising themselves as doctors and asking the public to consult them whenever there is anything the matter with the eyes: They also advertise that a great many diseases of the eyes are cured by the wearing of glasses, and of course, by inference, they convey the idea that no one is quite so able to properly adjust glasses as themselves.

In addition to this many of the opticians are already prescribing eye medicine for local inflammation, though they are quite careful to prescribe some proprietary remedy and not write a prescription. Some of the better class of opticians, realizing the necessity for using cycloplegics, are now working in conjunction with physicians of small practice and meager mental equipment, the doctor furnishing the medical degree necessary for the prescribing of cycloplegics and incidentally passing an opinion for what it is worth on the advisability of having systemic or local treatment. I think the worst feature of the whole business is the effort on the part of the optician to create the opinion that $\frac{9}{10}$ of all eye diseases are due to refractive errors, and that glasses will produce a cure. This sort of teaching leads many people with serious eye lesions to continue under the care of opticians until perhaps all hope of bringing about relief has passed. Sometimes the ocular lesion is a part of a general lesion which threat-

ens life, but this makes no difference to the optician!"

In referring to the Indiana daily papers nowadays one sees advertisements of the most extraordinary cures of all sorts of conditions by the fitting of glasses by these "experts," even to appendicitis! And it has taken them but one year to find the limitations irksome, and they are reaching out toward treatment by drugs.

Thus after a very brief investigation some very great objections appear to this promising measure. The licensing of optometrists would be an infringement on the Medical Practice Act. It would admit to the practice of a branch of medicine men who are not bound by any of our ethical restrictions, whose first acts would be to advertise their qualifications, arrogating to themselves superiority to the medical profession.

Their *raison d'être* being the selling of glasses, they would do so irrespective, in many cases, of the proper understanding of general or even local pathologic conditions affecting the eyesight.

In attempting to treat diseases of the eye there would arise a new and unholy alliance of the optical expert and nostrum dispenser, and so on: the vista opens up marvelously as one peers into the possibilities of optometry legislation.

In Indiana the sole good result has been the doing away with a few relatively harmless peddlers of spectacles, while in one short year a crop of hybrid monstrosities has appeared which calls to mind the fabled sowing of the dragon's teeth.

Is not our present frying pan sufficiently comfortable after all, until we can find some other plan of escape other than the one offered us?

NO INFRINGEMENT ON THE MEDICAL LAWS.

The position taken by the Committee on Public Policy and Legislation at its

recent meeting, as shown in the resolutions printed elsewhere, is we believe, eminently fit and proper at this time. After several years effort and with a great deal of difficulty the medical profession of Ohio finally secured a Medical Practice Act for the restriction of the practicing of medicine to those who should properly qualify themselves by collegiate training. The Board of Medical Examination and Registration under this act has striven consistently to raise and maintain an ever higher standard, to the ends that the science of medicine in our State shall keep pace with the steady progress elsewhere, and that the public be protected from the impositions and fraudulent practice of uneducated practitioners, fakirs, and charlatans.

The Board, therefore, should have our earnest and unqualified support; its hands should be upheld and its efforts seconded in these directions, and all attempts to infringe upon its prerogatives should be strenuously opposed.

Much has been said recently of the various respective merits of the Restrictive, the Definitive and the Limited Qualification plans, but it would seem clearly to be best to cling to the first named, the one which we secured with so much effort, until it has been given a fair trial and found wanting. The burden of proof lies upon the others; the Definitive plan seems to us at once too radical, too experimental, and calculated to plunge us into a state of chaos; while the Limited Qualification idea is little better, and in its practical workings, is not at all adapted to actual conditions in this country.

We understand it has been inaugurated in Germany and can readily believe that it might prove very effectual in that country where the paternal character of the government and the strong system of police control enable the regulations to be actually enforced in a way quite im-

possible here. Also the Teuton has, we must confess it, a very much greater respect for his laws than is current in America.

He is hedged about with rules and regulations all his life; as a child he plays, studies or works as the laws may direct. Older, he serves in the army, lives, dresses, builds his houses, travels, and enjoys himself all strictly according to permission and oversight of the police. The German landscape is dotted with signs forbidding him to go here or there, or to do this or that; he likes it that way, and always does as he is told. Was it not Jerome who says that even if a German dog seeking a way out, comes to a sign "Durchgang verboten," he promptly turns back and seeks another path? It is very different with us; we are impatient especially of personal restrictions. The signs, "No Thoroughfare" and "No Trespassing" immediately incite in us the desire to tread the forbidden paths.

We have nothing like the police surveillance of Germany, nor would we tolerate it! If we should legalize practitioners on limited certificates, how long would it be before they would find their restrictive confines so irksome that they would surreptitiously extend their operations to, sooner or later, all departments of medicine? It is the old case of given an inch, they take an ell! Is this not true of the osteopaths, and what of the optometrists in Indiana? In one short year they have begun to overstep their prescribed bounds. It is argued that by licensing optometrists, illegal prescribing of glasses will be done away with and the applicants for recognition promise to be **very, very good!** The same arguments apply, and the same promises would doubtless freely come from the Christian Scientists, the Neuro-Magnetics, the Neuro-paths, the Cheiro-practics and so on **ad nauseam!** No matter how

sharply defined the limits by law it would be impossible to maintain any sort of control. If it is very difficult now to obtain convictions of illegal practitioners who are practicing in open violation of the law, what would it be in cases where the practitioner had a legal status, and merely overstepped his limits? What would a jury of his peers make of such a case?

We must stand for absolutely no infringements on the present medical laws. The proposed optometry bill would be but the entering wedge, it would open the way for isms and pathies without end, and medical restriction in Ohio would be but a by-word and a farce.

POLITICS AND PUBLIC HEALTH ADMINISTRATION.

The administration of the public health fails of its best results pretty much all over our state because it is dominated by politicians for partisan purposes. The present board system has never risen higher than the motives of the appointive power. In a few cities exemplified by Dayton, where the mayors make appointments of board members for sanitary rather than political effect, sanitary organization receives proper attention.

Such cases, however, are exceptional; the rule is to recast health boards on party lines at each change of municipal administration with the result that the "department of health" is disconcerted and to a degree disorganized.

It was intended to place the board system on a non-partisan basis, but its efficiency was destroyed when its creative law was so amended as to permit city councils to abolish health boards and to place the public health administration in the hands of service boards. Many cities have allowed their public health boards to pass from independent to partisan rule,

and in such cases experience shows that machine politics has complete control.

The board system has failed (1) because politicians secured amendments to state law, section 187 (1536-723), in 1894, making abolishment of boards possible; (2) experience shows that the appointive authority, as a rule, does not select sanitarians for board members, and (3) the volume and character of the work in larger cities require too much time and ability for gratuitous service.

Sanitary science in its wonderful progress of disease prevention, as shown by the results in plague, yellow fever, cholera, consumption, diphtheria, malaria, typhoid fever, scarlet fever, venereal and other communicable diseases, offers to the government of the people services of inestimable value. Nothing in the administration of public affairs equals in importance the prevention of disease and death, and as a matter of political economy alone it should be one of the first considerations of the state and municipality to properly organize and administer means to this end. Strangely enough, the people are negligent of the public health interests. They create or submit to conditions that lead to their own destruction, without counter efforts or protestation. The awful havoc of typhoid fever, an insult to common sense, is only an example of many other diseases, which, although preventable, are suffered to work death and destruction because the laws do not afford effectual prophylactic measures. The carelessness and ignorance of the people in matters of public hygiene are therefore largely responsible for these conditions.

The special knowledge of physicians regarding sanitary matters imposes upon the medical profession everywhere a special duty and obligation to educate the people and to urge civic officials to a higher order of the public health defense.

Efficient sanitary service does not issue from a political board. True, good politics is good public service, but experience and observation in the establishment of local health authorities show that many service boards have supplanted health boards and that city administrations overpower their own appointees for partisan purposes, rather than seeking only to push the work of public hygiene. Employees in the "department" devote themselves to the line of action opened by the administration, either politics or sanitation—never both—with the result, too often, that the tax-payer has been compelled to support worthless political organization in the livery of a health board. First secure sanitary authority organized for the public welfare; then there will follow, and not until then, public health service worthy the name.

Since the people do not appear before legislatures and city administrations in their own behalf to plead for better sanitary organization, physicians must take up the work, because the sanitary interests of the people are identical with the principles of medical organization.

The best form of local sanitary organization, from township to city, must come of an appointive power wholly in accord with the public health service. The numerous failures of city authorities to appoint efficient health officials on the merit system has led to the advocacy of the deputy county health officer, to be appointed after a competitive examination, by the State Board of Health, from nominations suggested by the county medical societies.

The pay and tenure of office should correspond to those represented by the legal profession; the salary on a sliding scale, to meet varying conditions in different counties, should be ample for technical service. The public health interest, because of its vital importance and the increasing number and complexity of popu-

lation, can no longer be subserved by political appointments or unpaid sanitary ability.

In supplanting the board system without pay for the county health officer with pay, the objections are raised of increased taxation to the county and the political machine that is to be made out of the State Board of Health, but the increased expense would be measured by improved sanitary service, and the danger from "politics" in the State Board of Health in the appointment of county health officers after a competitive examination of candidates suggested by the county medical societies would be reduced to a minimum as compared to the present method of appointments.

Another radical difference in the manner of appointment aside from the qualification by examination is the fact that members of the State Sanitary Board would have no other interest in appointing deputy officers other than to secure sanitary service. The only objection to be offered will come from political or personal interests, and the claim of economy. Stripped of their selfish and partisan motives and weighed in the balance of political economy, these objections should give way to the obvious advantage of the new form of public health defense.

The state and auxiliary committees are committed to this new order of sanitary organization from township to city.

Within the limit of this article it is impossible to enter into details of the proposed enactment, but these general outlines should show the need of starting the campaign of education for the hygienic uplift of the people from the grasp of machine politics.

J. W. C.

EDITORIAL NOTES

Frank Winders has returned from a year in the clinics of Europe and has opened an office in Columbus where he intends limiting his work to internal medicine. Dr. Winders spent most of his

time in Vienna and Berlin, though also visiting London and Paris. In Vienna he devoted his time chiefly to the study of diagnosis under Covacs, and pathology under Ghone, and is enthusiastic as to the abundant material and the exhaustive way in which it is handled by these eminent teachers.

In Berlin he was fortunate enough to see considerable of Professor Krause's work in the latter's clinics in internal medicine in the great Charité Hospital, and feels that the opportunities for study there are indeed excellent.

The doctor is greatly pleased with the result of his year's trip, but is glad to be with us again.

CLINICAL NOTE

IMPORTANCE OF INDICAN INVESTIGATIONS IN DIAGNOSIS AND THERAPY.

From Toledo (O.) Clinical Laboratory.

Indican is the most important of the normal chromogens of normal urine, is the product of indol generated in the intestine by albuminoid decomposition, which is transformed by oxidation into indoxyl in the blood.

This chemic product acted on and combining with sulphuric acid, is recovered from the urine as potassic or sodii indoxyl sulphate or indican.

Indoxyl closely related to the conjugate sulphates is excreted in amounts from 4. to 19.5 mgs. in 1500 cc. of normal urine from general diet, greatly increased in exclusive meat diet or pathologic conditions of the gastro-intestinal canal.

Mineral acids may decompose indican in the urine, the indoxyl changed by oxidation into indigo blue or red, which under pathologic conditions may appear in the urine as spontaneous solutions or sediments.

The oxidation of indican into indigo blue may occur before the urine is voided, or just after, which is indicated by bluish, green or black color, according to the quantity present.

Bacteria of putrefaction in small or large intestine, as well as the *B. coli communis* and other types of intestinal bacteria (*B. Gaertner* specially) play a most important part in the formation of indol, then later indican.

Indoxyl sulphate is found in normal urine in larger amounts after a hearty meal of proteids, meats largely, the least quantity found after milk diet which latter diet reduces the intestinal bacteria to smaller numbers.

For the past eight years in our laboratory, we have given special attention to indican investigation, as its absence, presence or excess gives direct and definite information as to the normal or

pathologic conditions existing, that otherwise the urine does not indicate.

Such information is valuable to the patron for diagnosis or therapeutic purposes, often disclosing a hitherto masked condition.

From our studies of indican, the following facts have been gleaned: Excess indicates abnormal decomposition of the proteids, stagnation of peristaltic movements, associated with active intestinal bacteria.

Ordinary or uncomplicated constipation does not increase indican under ordinary diet of proteids.

In all conditions of the stomach in which digestion is impaired by diminished or lack of hydrochloric acid, absence of pepsin or presence of pepsinogen.

Malignant conditions in the ileus, stomach, a diagnostic fact of importance, as indicanuria is marked in these two conditions.

In all cases of gastric inflammations, acute and chronic, atrophic condition of peptic glands or dilated stomach, indican is in excess.

Phenol is rarely met with and in traces then associated with indican in the above-mentioned conditions, but phenol may be in excess of the indican in cases of lung gangrene, empyema; indol generating bacteria being present in large and active numbers, as latter stages of pulmonary or intestinal tuberculosis.

Colon obstruction gives no increase of indican, or only after some days of such obstruction: indican very much increased in intussusception.

In presence of appendicitis with abscess, peritonitis, decrease of indicanuria is favorable, increase unfavorable, in some cases, indicanuria bears close relation to nephritis, pyelitis.

Indican is greatly increased in cholera infantum, may be found often in large amounts in urticaria or psoriasis.

Protein destruction in fevers, autointoxication from prolonged influence of the toxins generated and absorbed by the intestines, will be indicated by large amounts or excess of indican.

Indican is seen in large quantities in Addison's disease, in some anemias, central or peripheral disturbances of nervous system, typhoid fever, pleural exudates, diabetes mellitus.

Indican in large amount during an attack of pleuritis indicates pathologic exudate: persistence indicates large exudate.

If indican is absent or very low in conditions which would favor its production, as under good meat diet, gastric disease, stagnation or jaundice, it will point towards occlusion of pancreatic duct.

Indican in excess is found in cancer of liver, cirrhosis of liver, lympho-sarcoma, diarrheas, malignant diseases of certain portions of the intestinal canal.

In examinations for life insurance, it has been our method to examine carefully for indican, absence, presence or excess, as for the proteids and carbohydrates.

Very often, indican in large amounts or excess will be found, giving evidence that certain functions are below par, when the physical conditions, investigations, and urine will appear as normal.

Investigation of indican is just as important in urine examinations as any other element, gives a birdseye view of the whole gastrointestinal tract, a most valuable source of information neglected unless sought.

R. C. LONGFELLOW, M. D.

AMERICAN PROCTOLOGIC SOCIETY

Tenth annual meeting, held at Chicago, Ill., June 1 and 2, 1908. The President, Dr. A. Bennett Cooke, in the chair.

OFFICERS ELECTED.—President, George B. Evans, M. D., Dayton, Ohio; Vice President, John L. Jelks, M. D., Memphis, Tenn.; Secretary-Treasurer, Lewis H. Adler, Jr., M. D., Philadelphia, Pa.

EXECUTIVE COUNCIL.—A. B. Cooke, M. D., Chairman, Nashville, Tenn.; George B. Evans, M. D., Dayton, Ohio; Samuel T. Earle, Jr., M. D., Baltimore, Md.; Lewis H. Adler, Jr., M. D., Philadelphia, Pa.

The place of meeting for 1909 is Atlantic City, N. J., May 31 and June 1, 1909.

The following were elected members of the Society: Dr. George W. Combs, 235 N. Penn St., Indianapolis, Ind.; Dr. Alois B. Graham, 224

N. Meridian St., Indianapolis, Ind.; Dr. Arthur Hebb, Professional Building, Baltimore, Md.; Dr. Alfred J. Zobel, 352 Lake St., San Francisco, Cal.

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The following is an abstract of the principal papers read:

PRESIDENT'S ADDRESS.—The President, Dr. A. Bennett Cooke, of Nashville, Tenn.

After briefly reviewing the organization and early history of the Society, stated that there has probably never been a medical organization composed of a membership drawn from such widely-separated localities and so restricted as to number, which can show a similar steady and unbroken record of growth, enthusiasm, and interest, increasing with each succeeding meeting. The fidelity and devotion of the individual members

was in the beginning and has remained the Society's distinctive characteristic.

He then proceeded to trace some of the results which had been accomplished in the ten years of the Society's existence, chief among which was emphasized the assured position as a legitimate dignified and important specialty which is now universally accorded to proctology. "Ten years ago special instruction in this branch, with a few exceptions, was only to be had in the post-graduate institutions of the larger centers. Today the curriculum of any medical college which does not include a course on proctology is rightly considered to that extent defective and behind the times. The benefit of this new order of things to the public cannot be estimated. At the present time the average patient requires something more of the man who is to be entrusted with his case than the title 'M. D.,' and as a direct consequence instances of incorrect diagnosis and misdirected treatment have become notably fewer."

The objects of the Society as defined in its constitution are the acquiring and dissemination of knowledge relating to this special field. The speaker inquired if the Society was living up to the full measure of its possibilities in regard to the second object, i. e., the dissemination of knowledge, arguing that such was not the case. As the means of correcting this defect, he suggested:

First. That an official organ be adopted or established and a full report of the scientific proceedings of each meeting published.

Second. That the possibility and advisability of becoming a section of the A. M. A. be seriously considered. The advantages and disadvantages of the latter suggestion were fully discussed, the opinion being expressed that what the Society would lose in independence and individuality would be more than gained in the wider sphere of influence and usefulness opened up by this more liberal policy.

The real question is not what we as individuals prefer, but what course would most certainly conduce to the advancement of the highest purposes of our organization? For after all we must remember that we are physicians before we are specialists, and that our most imperative duty has reference to the interests of our profession as a whole and to the welfare of humanity for which alone it exists.

"THE TREATMENT OF CHOICE OF STRICTURE OF THE RECTUM" was the title of a paper by William M. Beach, A. M., M. D., of Pittsburg, Pa., who stated that in his early proctologic experience he became an enthusiast on this or that method of treatment only to be disappointed by a recurrence of the ailment. All the classical recommendations were tried, namely, gradual dilatation, proctotomy internal and external excision and a few other technical schemes, ideal but not practical. Each promised favorable results for a time, but experience taught him that instead of cure the condition uniformly became worse.

In order to answer the query, what is the choice of treatment, it is important to consider first the history of syphilitic stricture, and second, the location and form of stricture to determine the degree of obstipation; third, the effect of a rectal stricture is to induce obstipation and extreme dilatation of the colon. Moreover, imme-

diately above the various constrictions are found the active ulcerations, the source of profuse discharges of pus, blood and mucus. Among other symptoms may be found colicky pains in abdomen, distension of abdomen, backache, aching down the legs, loss of flesh, and withal a general anxiety and neurasthenia.

Regarding the treatment it is apparent that if the disease was seen early much could be done to avoid disastrous consequences, but as the disease is so insidious in onset and development by virtue of the fact that the trouble is usually located in painless area, and that nothing short of obstipation drives the patient to seek advice, it is obvious that palliative treatment only increases the irritation and produces a greater degree of stricture. For this reason the injections of fluids is needed only for cleansing purposes, and such procedures as gradual dilatation by the passage of bougies, forcible divulsion, proctotomy, and even excision are only temporary.

For these reasons the author concludes that a permanent colostomy is the preferable plan, as this procedure admits of direct irrigation of the rectal cavity. The administration of strontium iodide in ascending doses for interrupted periods the writer believes is of extreme value, but he states that he has never been able to destroy the syphiloma with its use.

Irrigation should be used daily for the first month and less frequently there after. For this purpose normal solutions should be used of salines, alternating with solutions of one to one thousand permanganate of potash, or nitrate of silver twenty grains to the quart, or of ichthyol a drachm to the quart. Boracic acid solutions are often beneficial.

Defecation through a properly constructed inguinal anus is complete painless and under reasonable control. The patient soon becomes reconciled to his condition and rapidly improves in health.

The author, from his experience, concludes his paper with the following remarks:

1. Syphilitic stricture of the rectum is believed to be the result of badly-treated cases of syphilis in the early stages.
2. It is more frequently found in the female, for the reason that the primary lesions are more apt to be overlooked.
3. Direct surgical attack of rectal syphiloma does not insure permanent relief, but rather aggravates the condition.
4. Specific constitutional treatment should be instituted, with the hope of making a favorable impression upon the diseased tissue.
5. Permanent colostomy is the treatment of choice for the purpose of irrigation and restoration of bowel functions.

* * * * *

"AMEBIASIS, ITS SYMPTOMATOLOGY, DIAGNOSIS, SEQUELAE AND THE USE OF FORMALIN AND COPPER PHENOL SULPHONATE IN THE TREATMENT"—By Dr. John L. Jelks, Memphis, Tenn.—Who called attention to the great prevalence of this disease in the South. Marked differences have been ascribed to the ameba as to its character and actions in different cases, especially with reference to their phagocytic properties and their motility. The author referred to associated infection as

playing an important role in many cases, and attributes to this mixed infection the difference in character of ulceration in the higher parts of the colon, and that in the rectum.

Cases of amebiasis are referred to as occurring in nests, in the low marshy districts, in the sparsely-settled alluvial sections and in the suburban mill districts of the city. None of the cases in the city were residents of the highland portion, and all of them partook of fresh vegetables, which were grown in the bottoms and washed with water from shallow wells.

The author viewed with suspicion all cases of violent acute dysentery or chronic diarrhea with mucus discharge. The author stated with emphasis that he has not found the symptoms of dysentery and diarrhea essentials to the existence of amebiasis; on the other hand, he has encountered cases in which constipation or obstipation was complained of, and he called special attention to this statement as being contrary to the generally-accepted theory.

In the majority of cases, however, he stated the patient complains of and the predominant symptom in chronic cases is that of recurring diarrhea, which has existed for several months or years, associated with a quantity of mucus and occasionally blood stained.

The symptoms in malignant acute cases, the author recited, are quite severe from the onset, the patient suffering great exhaustion from numerous movements and the septic condition which soon ensues. Sometimes large casts of mucosa are expelled, as also casts of mucus and fibrin. These latter are most fatal and should they recover from the acute symptoms, very often lapse into a subacute or chronic condition which may last for years with periods of abatement and exacerbation of symptoms.

The author reviewed the symptomatology and then stated that a diagnosis might be overlooked without the aid of the microscope, but if put into more general use by clinicians in the South, especially, would reveal many heretofore unsuspected cases as of this origin.

In reciting the sequelæ and gross intestinal pathology in a series of twenty-five cases, the author referred to many features, and stated that in two recently-treated cases small openings or ulcers extended into extensive sub-mucous abscesses.

Often the intestinal mucosa presents only slight ulceration, or a general red granular appearance, or perhaps cedematous, and though these are amebic, a mixed infection is thought accountable for certain phases of this process, for, as the author explained, the amebæ prefer the juicy sub-epithelial structures, and the pathology is chiefly sub-epithelial. The colon bacilli and streptococci are accorded importance in part of the inflammatory process, especially in the rectum. Thus is explained the great difference in the character of the ulcers found there and those seen in the higher portions of the colon.

Autopsy in one case showed marked strictures and thickening of rectal wall, while in the splenic flexure, which was the seat of fatal perforative ulceration, the ulcers were sharp cut, round and oval seen through a thin gut with only lightly-adherent omentum covering the perforated gut.

Periods of exacerbation and abatement of symp-

toms in these chronic cases are thought due to several causes, chiefly the difference in activity and virulence of different generations of this protozoa. Certain differences exist also in activity in sporulation and in the process of encystation.

In the twenty-five cases cited by the author he noted four cases in which infection in the liver was diagnosed, two of which were verified by operation; five cases of stenosis, more or less marked; two cases of valvular stenosis; two perforations, one of which was verified by autopsy; one case in which casts of mucosa was expelled; one case from which seven adenomata were removed from the upper rectum; in three cases jaundice was marked; three cases had hemorrhoids and one case had rectal abscess and fistula; one case suffered an impaction in the sigmoid, the size of a fetal head, the result of stenosis below and thinning of the muscularis above; one case had infected gall bladder which required drainage; in four cases appendiceal involvement was diagnosed; in one case in which appendicostomy was performed, adhesions were found, the result of an attack since the dysentery was established, and in this case great thickening of the peritoneum and a tubercular family history afforded reason for suspecting in this case a tubercular complication. However, Lewis' law could not be verified.

In the treatment, the author first referred to the importance of selecting a proper diet for these cases, and then referred to the use of formalin and boracic acid solution, and formalin and copper phenol-sulphonate solution in high irrigations through a recurrent tube which he has devised specially for that purpose. He also referred to treatments through the sigmoidoscope with silver nitrate, followed by the installation of boracic acid and aristol, or iodoform and bismuth subnitrate and olive oil.

The author concluded that the washing away of necrotic material and debris, as also the infecting agents is an important matter in the treatment of these cases, and stated that these stimulate the vaso-motor supply, relieve passive congestion and stasis, increase the amount of flesh blood to the inflamed structures, and perhaps aid in the development of antitoxic bodies.

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"SOME RECENT CONTRIBUTIONS TO THE PHYSIOLOGY OF THE RECTUM."—By Dr. Samuel T. Earle, Jr., of Baltimore, Md., who stated that the properties of the external sphincter resemble those of plain muscle; that the anus closes by permanent tonus of the two sphincters independent of the will, but is supplemented by it for voluntary control, that the tonus practically disappears after section of the nervi erigentes, proving thereby that the closure depends upon the constant expenditure of nervous energy, and not upon the elasticity of the muscle and the arrangement of its fibres.

That there are constrictor and dilator fibres to the internal sphincter which can be stimulated reflexly through the spinal cord, proving a reflex centre in the lower portion of the cord; that through this centre, either reflexly or voluntarily, the internal sphincter can be dilated or constricted and the external sphincter can be inhibited.

REPORT OF A CASE: "PLATE WITH FALSE TEETH IN SIGMOID."—By Dr. Samuel T. Earle, Jr., of Baltimore, Md.—Mrs. F. H. D. the latter part of August, 1907, while eating ham, swallowed a plate with two false teeth. Ten days later she had a violent attack of pain in the abdomen, followed by a chill and fever; there was no recurrence of this for one and a half months. Since then they have recurred from time to time, but not as severe, nor have they been attended with chill and fever. A skiagraph taken of the lower abdominal and pelvic regions showed the plate in the sigmoid flexure of the colon, on a level with the promontory of the sacrum. Examination through the sigmoidoscope brought them into view at the point shown by the X-ray. There was considerable tenesmus, and the passage of a good deal of mucus, also a tendency to constipation. Under the influence of two hypodermics of morphine gr. 1/4, hyoscin hydrobromate gr. 1/100, and cactina which produced satisfactory anaesthesia. Dr. Earle was able to grasp the plate, through the sigmoidoscope, with a pair of long alligator forceps, and withdraw it immediately behind the sigmoidoscope.

"GALVANIC ELECTRICITY IN THE TREATMENT OF HEMORRHOIDS, FISSURE, PROLAPSE, ULCERATION AND NON-MALIGNANT STRICTURE OF THE RECTUM."—By Dr. William L. Dickinson, Saginaw, Mich. Who stated that he did not claim that this is par excellence the treatment for each and every case of hemorrhoids, fissure, prolapse, ulceration and non-malignant stricture of the rectum, but that in suitable cases, and also where from fear, physical conditions, or other reasons, the patient refuses to submit to surgical measures, the method had proven its utility.

In the use of galvanism, sight should not be lost of the different properties of the two poles, remembering that we always have physical and therapeutical properties peculiar to each pole, and exactly opposite in effect. The positive pole produces oxygen, is acid, hemostatic, sedative, contracts and hardens tissue, is an acid caustic, and produces hard, firm cicatrices, is also a vaso-constrictor. While the negative pole produces hydrogen, is alkaline, dilates blood-vessels, thus increases bleeding, causes hypersensitiveness, liquifies and disintegrates tissues; being an alkaline caustic, the resulting cicatrices are soft and yielding; it is also a vaso-dilator.

Internal hemorrhoids are successfully treated with the electric needle, as follows: Cocainize the hemorrhoid, then introduce a platinum or common cambric needle into it, attached to the positive pole, while the negative pole is connected with a large abdominal pad. Use a current strength of fifteen mille-amperes for fifteen or twenty minutes, or until the hemorrhoid is rendered hard and unyielding. Best to treat one hemorrhoid at a time.

Anal fissure should be cocaineized, then a copper probe attached to the positive pole should be applied until a pronounced deposit of the oxychloride of copper salt is obtained. There will be considerable soreness for a few days, but the patient is always greatly benefited by the first treatment if not cured by it, and is always cured by five or six treatments.

Where the edges of a fissure are greatly hyper-

trophied the negative pole should be applied to cause liquifaction of the dense tissues.

In cases of prolapse where the redundancy of the rectal wall is of moderate degree, galvanism is of marked benefit, an electrode attached to the positive pole should be introduced into the rectum and a current of fifteen to twenty-five mille-amperes used daily for ten or fifteen minutes. Stricture of the rectum is successfully treated by the same method as urethral strictures, viz.: pass an olive-pointed electrode, one or two sizes larger than the caliber of the stricture down to and gently pressing against the stricture, this electrode should be connected with the negative pole, and a current of ten to twenty mille-amperes used, until the tissue is softened and relaxes, allowing the instrument to pass. Treatments should be given every five or six days, using a larger bougie each time.

When there are several small ulcers in the rectum, the rectal pouch should be filled with normal saline solution, then introduce a long copper electrode, attached to the positive pole, using a current of twenty-five or thirty mille-amperes, continuing the treatment until the effect of the oxychloride of copper is obtained.

Where the ulcers are large and deep, the better method is to treat each one individually with the zinc-mercuric cataphoresis, using olive-pointed electrodes, and a current of twenty to thirty mille-amperes.

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"DYSENTERY."—By Dr. J. M. Mathews, Louisville, Ky., who reported a case of amebic dysentery in a man forty-five years of age, who had never been farther south than Louisville, Ky. He had been treated for ten years for a diarrhea which entirely disappeared at times, but in the course of a few months it would reappear. A proctoscopic examination was made and an ulcerated condition of the entire rectum and lower half of sigmoid was observed. A number of the ulcers were curetted and a microscopic examination made. No ameba were present. Ulcers were all healed and patient well in three and a half months. In about ten months patient returned to the office and was found to be in about the same condition as before. Another scraping was done and a microscopic examination made. Numerous ameba were present.

Patient being a wholesale fruit dealer had handled and eaten raw tropical fruits for more than twenty years. There is no doubt about his infection occurring in this way.

Report of second case: A boy, ten years of age, with a good family history. He had so-called dysentery for two years. Had, of course, been treated for the same during this time. He was thin and anemic, had temperature every afternoon from 99 to 101. Pulse rate correspondingly increased. Had from five to fifteen actions every day. He was placed in the Hanes (inverted position) and examined with the sigmoidoscope. There seemed to be an abrasion of the superficial protective epithelial cells along the lower extremity of the sigmoid and rectum. When a pledget of cotton was rubbed over the mucous surface it would be very slightly stained with blood. No other pathology could be made out.

Patient was put in bed and was not allowed to

get up except on the commode. He was given concentrated liquid and semi-solid food. The bowel irrigated every morning with normal saline solution and in the afternoon a local application of argyrol or ichthyol was made.

He remained in the infirmary four weeks and, at the expiration of which time, he was entirely free from diarrhea, with an increase in weight of twelve pounds. One month later he had gained eight pounds.

While such as these are referred to as cases of dysentery, they are types of diarrhea due to more or less fermentation in the upper bowel, and also, the sensitive condition of the mucous membrane, above referred to, in the lower bowel.

Report of third case: A man, forty-two years of age, who had an intense diarrhea for three years. It came on in the month of July after a day of hard manual labor. Weather was very warm and he had eaten quite freely of fresh vegetables. Attack was sudden and the diarrhea was preceded and accompanied by much abdominal pain. Actions from ten to fifteen each day. During his two years' illness he would improve under the influence of diet and rest, but did not feel at all well at any time.

When he first came to the office he showed every external evidence of being in the latter stages of malignant disease. We had him assume the inverted posture and the examination at once revealed a dozen or more small ulcers along the upper rectum and lower sigmoid.

He was put in bed and given rich concentrated food. Irrigations and local applications were made to the ulcers every day. He was sent home in five weeks and had gained fifteen pounds and was well.

In this case, as in the case just previously reported, there was no specific cause that could be made out. The disease in both cases yielded easily to treatment. In the first case it was proven to be amebic dysentery; in the second and third cases they were types of diarrhea, or so-called dysentery of a non-specific origin, so far as we are now able to determine. I doubt not that in the future many of the more simple forms of intestinal disturbances will be proven to have their specific causes.

POSITION FOR EXAMINATION, TREATMENT, ETC.—About three years ago Dr. Mathew's partner, Dr. G. S. Hanes, in treating a difficult case, discovered a position that has been employed ever since where the proctoscope is used. The patient is placed in an absolute inverted position, hanging over the edge of a table or chair on the thighs, with one shoulder supported on a chair of sufficient height. The opposite hand is supported upon the floor or two chairs can be used, one for each shoulder, the head passing down between them.

A special table for this position is in course of construction.

When the patient is in this position the entire weight of the abdominal viscera falls upon the diaphragm, which pulls upon the sigmoid and rectum and brings them more nearly in the direction of a straight line. Atmospheric pressure completely distends the rectum and lower portion of sigmoid in most cases. A complete view of these parts can be had by the use of a reflected light. The discomfort to the patient of distending the bowel by forcing air into it is never necessary ex-

cept in high examinations. The surgeon is in a comfortable position, standing by the patient, and looking down into the bowel. An enema can be given easily in this position and you know the solution passes up into the sigmoid and colon. It affords many advantages over other positions.

"THE CHOICE OF AN ANAESTHETIC IN RECTAL SURGERY."—By Dr. Jerome M. Lynch, of New York City, who stated that before the days of the specialist in anaesthesia, no matter how expert the surgeon, his success was more or less at the mercy of the recent college graduate—or undergraduate—who secured a hospital appointment and came into the operating room as the anaesthetist, without any preliminary study of the art and without any knowledge of the influence of the different anaesthetics upon the human system. Now the day of the specialist has come, and with it the trained anaesthetist, making incalculably happier the surgeon's task.

Nevertheless, the surgeon having studied his patient's system, and understanding his condition as the anaesthetist cannot, should use his own judgment in the choice of the anaesthetic to be given.

It is important that some method of shortening the anaesthesia be employed; that the intake of chloroform or ether be lessened by giving the patient some less objectional or less toxic drug, or by some preceding anaesthetic less hazardous.

Morphine and hyoscine, either as a substitute or preliminary to general anaesthesia, have been used successfully in some seventy-five cases. At the New York Polyclinic, St. Bartholomew's, and in private practice, considerable experience has been had with ethyl chloride, and it has been used now in over six hundred cases, as a general anaesthesia for short operations and examinations, or as a preliminary anaesthetic to chloroform or ether, without a single accident or bad result.

The author was the first to advocate the drop method in the use of ethyl chloride. He found that by this method the drug could be used more intelligently and that much less of the anaesthetic was required. Another advantage in this procedure is that it does not crystallize all over the mask as it does in the spray method.

The author did not advocate this anaesthetic to the exclusion of ether or chloroform; but held that for examinations, short operations, as a preliminary to ether or chloroform, and as an adjunct to hyoscine and morphine, it is safer and more efficacious than any anaesthetic we use today. He was decidedly opposed to any form of closed inhaler. To the open method must be attributed the good results with ethyl chloride. He did not find ethyl chloride, however, suitable for any anaesthesia which lasts over ten minutes, as vomiting is apt to follow a prolonged use of this drug. It is also contra-indicated in alcoholics, children with adenoids, patients suffering from acutely inflamed conditions of the throat, or advanced cardiac disease. Spasm of the larynx has occurred in some 5% of the cases; but this is at once relieved by withdrawing the anaesthetic, or by substituting a few drops of chloroform.

Another anaesthetic that has been overlooked, and one that is particularly safe, is nitrous oxide, alone, or with oxygen.

In the author's opinion, the surgeon would get better results, and the anæsthetist gain confidence, if the anæsthetic were not rushed in the beginning. The anæsthetist should take plenty of time; let the patient get used to the smell of the anæsthetic and accommodate himself to his surroundings, and he comes out of it in better condition. Under no circumstances should a patient be too forcibly restrained in the early stages of anæsthesia.

In conclusion, the author stated be sure of your anæsthetist. No man should give an anæsthetic alone, till he has been proved competent.

Above all, an anæsthetist is required who is competent in an emergency. The man who knows what to do when things go wrong, and does it, is the man who is worth his fee. There is no time for cogitation when a man's heart stops beating. But there is hope for the patient and success for the surgeon *if the man behind the dope is on his job.*

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"SURGERY OF SPECIFIC DISEASES OF THE RECTUM."—By Dr. George B. Evans, Dayton, Ohio, who said that venereal diseases of the rectum constitute maladies which have neither been mastered by the syphilographer nor the proctologist. The former is not familiar with the armamentarium for rectal exploration, and the latter is not thoroughly familiar with venereal diseases. The manifestations of syphilis escape the former because they are often removed from the field of vision; while the attention of the latter is called to the fact because pain exists in the rectum. In the first place, two propositions confront us. First, is this form of stricture of the rectum a local manifestation; that is, is it due to a primary sore? Second, is it the result of secondary or tertiary syphilis? According to an able author it is due to the rectum becoming inoculated through the secretions from the sores upon the vulva, thus giving rise to chancroidal ulcers, these ulcers becoming cicatrized and constriction taking place. Again, the presence of chancroids at the orifice of the vagina or about the anus gives rise to an inflammation of the areolar tissue surrounding the lower portion of the gut, and by the effusion of the inflammatory material at certain points, gives rise to constriction either in this way alone, or by directly producing inflammation and ulceration of the mucous coat of the bowel. Personally, the author had seen many cases of chancroid of the vulva of the worst kind—extending down and involving the anus; being filthy in the extreme, but stricture of the rectum did not exist. If chancroidal virus was carried into the rectum, we surely would find that nearly every prostitute would have a stricture of the rectum. Secondary induration of the rectum, following a chancroid of the anus, the author believed could occur; this induration being followed by chronic inflammation and ulceration, and finally developing cicatricial tissue, forming an extensive stricture. Again, this stricture may be the result of true tertiary inflammation or ulceration, the rectal wall being infiltrated with a syphilitic neoplasm, or by becoming organized into contractile tissue, produce the stricture. The true explanation of the preponderance of stricture in women, whether specific or otherwise, is to be sought for rather in the anatomical relations of the rectum, than in

any constitutional diathesis. The site of the stricture is generally at or about the attachment of the fibres of the levator ani muscles; this possibly plays an important causative factor indirectly, there being more or less constriction, consequently if there is any ulceration here the power of resistance in the patient is not sufficient to overcome the trauma. Here it is where the fæces meet their first resistance; here it is where these strictures undergo contraction and chronic inflammation follows. If one believes that all strictures, not cancerous, are syphilitic, they may use antisiphilitic remedies, but they will generally find that they fail to produce the desired results.

Finally, the following conclusions were formulated: That rectal stricture may follow chancroidal infection by virtue of its pathology, which may be the result of absorption or lodgment of infectious matter on mucous membrane or in sub-mucous or even peri-rectal tissue, and that rectal strictures may be but a latent manifestation of syphilitic infection. That this belief is in accord with the author's experience and is the reasonable deduction from the experience of other competent observers. Moreover, that while iodides are usually prescribed in these conditions, they are not of curative value, and that it is only by incision and internal mechanical dilatation that these strictures of specific nature can be made tolerable.

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"SIX CASES OF PROFOUND SECONDARY ANEMIA DUE TO BLEEDING INTERNAL HEMORRHOIDS, AND ONE CASE OF NECROSIS OF THE RECTUM AS A RESULT OF SELF TREATMENT" were reported by Dr. Dwight H. Murray, of Syracuse, N. Y., who held that the profession was not entirely blameless for the serious results which occurred in this class of cases, because it is looked upon by the laity as a matter of no serious moment, and in many cases the physician does not insist upon a thorough examination and prompt treatment.

The first case reported was one of bleeding hemorrhoids, secondary anemia, delirium, amnesic aphasia and other critical symptoms. A good recovery was the result of the operation.

The second case was one of hemorrhoids and a villous polypus resulting in profound anemia, heart weakness and a general appearance resembling that of malignant disease. This case made a full recovery following operation.

The third, fourth and fifth case resulted in profound anemia, weakness, melancholia and invalidism, all making a good recovery after an operation.

The sixth case had been long neglected and died as a result of the profound anemia two days after he was first seen by the author and before the patient consented to an operation. The examination showed: Hemoglobin, 10 per cent., and red blood corpuscles, 1,000,000.

The author held that in cases of bleeding internal hemorrhoids patients may lose more in ten minutes than can be recovered in as many days, and that surgeons were not justified in delaying an operation; also that it would be far better for the physician in charge to withdraw from the case if such a patient refuses to follow his advice when he believes that an operation is necessary.

The author believed that the primary cause in many cases of secondary anemia can be found, if

sought, in the last three feet of the intestinal canal.

The cases of necrosis of the rectum was caused by the injection of two-thirds of a teaspoonful of headlight oil upon retiring every night over a period of several weeks. The treatment was recommended to him by a fellow employee. The case made a good recovery, and at this time, five years after the operation, no stricture of the rectum has resulted.

EXHIBITION OF A NEW EXAMINING SPECULUM.—By Dr. Dwight H. Murray, Syracuse, N. Y.—Who states that it has been said "of the making of many books there is no end," and so it seems to be with instruments.

Among the good qualities of an examining speculum there should be—

1. It can be introduced with little discomfort to the patient.

2. It must allow a good view of the part to be examined.

3. It can be withdrawn without added discomfort.

5. It can be easily cleaned and sterilized.

He has found that this speculum possesses these qualities in a goodly degree, and he takes pleasure in presenting it to the society, hoping that some may find benefit in its use.

"SPONTANEOUS INTESTINAL ANASTOMOSIS."—By Dr. James P. Tuttle, New York City.—Whose paper consisted in a discussion of the means by which nature overcomes intestinal obstructions through spontaneous anastomosis. Four cases were reported in which the obstruction suddenly gave way, and the patients lived for various periods, with more or less regular movements of the bowels. These movements were afterward shown in one case by autopsy, and in two cases by operative interference, to have taken place by spontaneous lateral anastomosis between different portions of the bowel. The fourth case was never operated upon, but, being at the point of death, with great abdominal distention and inflammation, was relieved by some sort of giving way of the obstruction and eventually recovered. This patient had suffered from colitis and fecal stasis high up for a long time. Since this experience, however, these symptoms have disappeared and she has remained entirely well.

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"MESOSIGMOIDOPEXY, WITH REPORT OF TWO CASES," was the title of a paper by Dr. Louis J. Hirschman, Detroit, Mich. After defining the different forms of prolapse of the rectum, the author called attention to the unsatisfactory results so far attained in the various suspension operations for prolapse of the third degree. He argued that as in operations on the retroverted uterus, the shortening of the natural supports of the womb has superseded the illogical attachment to the anterior abdominal wall. He hoped that the mesentery, the natural support of the bowel, will be used to replace the old fixation methods used heretofore.

He reported two cases suffering from prolapse of the rectum and sigmoid of the third degree, both of whom had had other operative measures performed without satisfactory results. These two cases were operated on with entire relief by

the author's method of mesosigmoidopexy, the technique of which is as follows:

Under hyoscine and morphine anesthesia, fortified with a small quantity of chloroform, the abdomen was opened a little to the left of the median line, the incision paralleling Poupart's ligament. Nearly one-half of the sigmoid flexure was found telescoped into the rectum and the space formerly occupied by the uterus filled with the rest of the prolapsed sigmoid. The stump of the right broad ligament was found firmly attached to the sigmoid, thus holding the lower part of it in the prolapsed condition. The mesentery of the sigmoid was very much elongated, allowing the bowel to remain in the lower pelvis. The adhesion to the stumps of the ligament was separated, and the stump of the broad ligament covered over the peritoneum, the prolapsed bowel lifted out of the pelvis and the outer surfaces of the mesentery of the large loop of the sigmoid lightly scarified. Beginning toward its deep attachment (about six inches from the bowel in this case), the two opposing surfaces of the mesosigmoid were brought together by interrupted twenty-day catgut sutures (No. 2). Three rows about an inch apart were placed in this manner, the upper row being three inches from the bowel. As the sutures were tied the sigmoid and the rectum were lifted from their prolapsed position.

For fear that the curve of the loop might be lessened and possible kinking take place (a rather remote possibility on account of the strength of the adhesions), the longitudinal muscular band of the sigmoid, together with an eighth of an inch of the serous and muscular coats of the bowel on either side of the band, was rolled in upon itself by transverse interrupted catgut sutures, placed three-quarters inch apart around the curve and for two inches beyond at each side. This rolling in of the muscular band made a rib of firm muscular tissue, which materially increased the size of the curve and greatly strengthened it.

The scarification of the sutured surfaces of the mesosigmoid assured us of an adhesive surface of over eighteen square inches, and yet allowed perfect motility of the organ. The abdomen was closed, the rectocele reduced and repaired, and the prolapsed anal mucous membrane resected.

In the after care of these cases the patient is kept confined in bed on a restricted assimilable fluid diet and the bowels not allowed to move for about ten days. At the end of that time the diet is gradually increased, but the patient not allowed to get out of bed and walk until the end of the fourth week.

In the two cases reported by the author in his paper, reports from the patients six and eighteen months afterwards respectively evidenced the fact that they were in perfect health and both having natural normal bowel movements without assistance.

While these patients were women, the same condition occurs in men, and the same technique is applicable to them.

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"CARCINOMA OF THE RECTUM; COMPARATIVE RESULTS OF OPERATIVE PROCEDURES."—By Dr. J. R. Pennington, Chicago, Ill.—Who stated that the purpose of this brief paper was not so much to call attention to any particular scientific manner

of treating a case of carcinoma of the rectum as it was to report, compare and contrast the result of two cases which in the beginning were very similar. One patient, however, followed the advice of a Christian Science healer and the other that of her physician.

To epitomize, the first patient was a male, forty-eight years of age and apparently healthy, robust and vigorous.

The second one was a female, sixty-nine years of age, weak, emaciated and hardly able to withstand a surgical operation.

The man dictated what should and should not be done for his condition.

The woman said: "Doctor, I am in your hands and trust everything to you. Do the very best you can for me, and I will be satisfied."

He pinned his faith to Christian Science.

She pinned her's to her doctor.

He spent the last year of his life in a most miserable and wretched condition—a condition appalling and pitiful to behold.

She has suffered no inconveniences from the operation and has spent the past year of her life enjoying the very best of health, happiness and pleasure.

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"PRIMARY MELANOTIC SARCOMA OF THE RECTUM AND ANUS, WITH REPORT OF TWO CASES."—Louis J. Krouse read a paper on the above subject and stated that very little space or none at all has been devoted to this subject in works on general surgery. He quotes what the various authors on diseases of the rectum say in reference to this class of new formations. He has gathered together all the cases of this disease which has been reported in the literature up to date and has compared the relative infrequency of this class of neoplasm with other malignant growths located in the same region. Of the nineteen members of the American Proctologic Association with whom he corresponded only four reported six cases, which, added to the two of the author's cases, make eight cases, showing the infrequency of this class of new formation. Fifty-two cases were collected from the medical literature, making altogether sixty cases.

In forty-five cases, in which the age and sex of the patients were specified, there were twenty-eight males and only seventeen females. No decade was exempt except the first, the youngest being a boy, aged seventeen, and the oldest a man, aged seventy-five. That it was more prevalent in the sixth decade, being a disease of the middle period of life and old age, the average age being forty-nine and five months.

Of the fifty-one cases in which the location of the growth was noted thirty-seven were situated in the anus, thirteen in the rectum and one in the sigmoid. The anal representing 72.5 per cent., the rectal 25.5 per cent.

Concerning the etiology of these melanotic growths, some authors claim that in the great majority of cases one can find a distinct positive cause. It is the opinion of these authorities that the growths originate from birthmarks of pigmented moles and warts. Wagner found it to be the case thirty-seven times in the 145 cases of Dieterich, or 26.2 per cent. In his own cases the percentage was higher, being found nine times in

the nineteen cases, or 47.3 per cent. Eve found it to occur twenty-six times in the thirty-three cases of melanotic sarcoma, or 78.8 per cent. As pigmented moles or warts are not likely to be found in the rectum, the author suggests that perhaps the papillæ, which are situated at the border line where the skin and mucous membrane unite, may act as the starting point from which these growths originate.

From the author's compiled table he finds that thirty-one cases were operated upon and ten were not. Of the thirty-one cases only twenty-eight cases can be utilized. Of these eleven had had no recurrences, and seventeen had recurrences. Of these five lived beyond the three years' limit without recurrences. Tuttle, Key and Drenkhohn each had one case, and Esmarck had two. Tuttle's died in three years and four months of metastasis; Key's died at the end of the third year of recurrence; Drenkhohn's died of ileus at the end of the third year. Only Esmarck's cases had no recurrences; one was alive at the end of the eleventh year, and the other at the end of the third year.

Attention is drawn to the rapid recurrence after operation. Three had recurrence as early as the fourteenth day. Two between the second and fifth months. Four between the fifth and twelfth months, and two between the first and third years.

The average length of time that the patient lived after an operation and dying from recurrence was nine months. The shortest was five weeks, and the longest was three years.

The duration of the disease was noted in twenty-four cases from the time of the first appearance of the trouble to the day of operation. The longest was four years and the shortest two months; the average fourteen months and twenty-two days.

The length of time that the patient lived without operative interference can be arrived at from the report of four cases. One lived two years and eight days; another one year and five weeks; another one year, and the fourth lived five months—an average of about thirteen months.

Cases operated upon and dying from recurrences: The length of time varied; one died in sixteen days; four died in one to two months; four died in two to five months; three died in one or two years; three died in three to three and one-half years.

The length of time from the first appearance of the trouble till death, where no operation was performed, only three cases can be utilized. One lived one year and five weeks, one lived two years and eight days, and the third lived five months.

A microscopical examination of the tumors revealed that most of them were of the alveolar type.

He concludes his paper with the suggestion that, as the course of the disease is so malignant, extirpation is the only rational thing to be done. Not only should the neoplasm be removed thoroughly, but a good deal of healthy tissue should be sacrificed. Should the tumor be located at or near the anus, the sphincters as well as the inguinal gland should be extirpated.

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"SOME COLONIC, SIGMOIDAL AND RECTAL CONDITIONS."—By Dr. Edwin A. Hamilton, Columbus, Ohio.—Who stated that the ascending and a por-

tion of transverse colon have to do with absorption of the fluids of the digestive tube. The descending colon and sigmoid are concerned with storing fecal debris. There are changes in the intestinal wall of the descending colon, sigmoid and rectum which are due to the function of these parts. On account of the stagnation, fermentation and putrefaction in the contained mass, toxins and bacteria, under conditions favorable to this process, pass through the mucosa into the wall of the bowel. The result of this permeation of the wall of the intestine is an irritation, which brings on a round cell infiltration of its layers. This infiltration diminishes the elasticity of the viscus and by its slow but inevitable contraction diminishes its lumen. This same process of round cell infiltration may attack the mesenteries of these various divisions of the bowel and cause thickening and contraction of them. The main symptoms of this condition is prolonged and intractable constipation, with all its morbid sequellæ.

After fibrosis has occurred the affected area may be palpated, if the abdominal walls are relaxed. It is needless to remark that all accessible viscera must be investigated, and every other cause of the constipated state must be eliminated. Treatment comes under the hygienic, in which diet and colonic lavage occupies a very prominent position.

Surgery must be invoked in the advanced cases when the fibrosis is marked. Any part or all of the colon except the part concerned in the absorption of fluids may be removed. Metchnikoff is a prominent advocate of the idea that the colon is the territory from which most of the poisons which destroy the body originate, and that if man possessed no storehouse in which digestion debris may stagnate and putrefy he would be a much more physically perfect animal. So that we may not hesitate to remove any portion of the lower bowel, no matter how extensive that portion may be, when it has already lost what little functional value it originally possessed.

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"RECTAL DISEASES: A REPORT OF THREE CASES—CONDYLOMA, LIPOMA AND FOREIGN BODY," was the title of a paper read by Dr. Lewis H. Adler, Jr., who stated in reference to condyloma that two varieties were recognized, one being of syphilitic origin, called condyloma latum, and the other condyloma acuminatum, due to irritating discharges of a non-specific course, such as gonorrhea, leucorrhœa and chancroid. The latter form was the variety concerned in the case reported, the patient evidently acquiring the trouble in the practice of sodomy.

The essential peculiarity of the case under consideration being that the numerous cauliflower growths encircling the anus (some being large and others small), was the fact that not only had the growths involved the cutaneous surface, but also that they existed within the bowel upon the mucous membrane. The latter, it is true, were quite minute and might have been overlooked by a superficial examination. All of the excrescences, even the smallest, were pedunculated.

The treatment consisted in the removal of the larger growths by scissors and cauterizing their bases with a paquelin cautery. The smaller growths were destroyed simply by the application

of the cautery point. To prevent pain due to the cauterization the parts were sprinkled liberally with bicarbonate of soda, as recommended by Dr. Jas. P. Tuttle.

The patient made an uneventful recovery.

Case II.—The case of lipoma was not exceptional except for the fact of its occurrence in the ischio-rectal fossa and that it could be pressed backward and forward through a ring of firm tissue, which ring could be distinctly felt surrounding the tumor and through which it glided back and forth very much as a hernia sac.

The growth was removed under ether anesthesia and was found to extend well up in the ischio-rectal fossa on the right side. The redundant skin was excised and the wound brought together with silkworm gut sutures.

The recovery was uneventful.

Case III.—A very remarkable instance of a foreign body in the rectum was that of a woman, aged forty-two, who had consulted Dr. J. J. McLaughlin, of Philadelphia, and then, through the doctor, the writer of the paper.

She had reason, about six years previous to seeing Dr. McLaughlin, to think she was pregnant, having most of the symptoms pertaining thereto—suppression of menses, enlarged abdomen, morning nausea, etc. For about six months she did not menstruate. At no time did she experience foetal movements. About six months from the cessation of menstruation the flow returned, and she again became regular in this respect. The physician she was then seeing informed her that he thought she had had a false conception. Two years later she went south and contracted a diarrhea, which kept her under the care of physicians almost constantly, but without experiencing any permanent relief. Six months prior to seeing the author of the paper she had experienced considerable tenesmus within the rectum, the pain being confined to no one point, but was experienced low down in the pelvis and about the rectum. Sometimes a dozen paroxysms would occur in a day. The diarrhea still continued, many movements occurring in the twenty-four hours.

At no time was there any bleeding from the bowel, and she was not affected with any protrusion, such as piles, etc. About two months before she saw the author of the paper she passed from the rectum what she termed "a bunch of bones," and a month later a piece of skull.

Upon consulting Dr. McLaughlin, the patient was carefully examined by him and a diagnosis made, which was subsequently confirmed by the author.

At the time of the examination the patient showed marked evidence of being poorly nourished, weighing but about seventy-five pounds, her usual weight prior to this trouble being over a hundred. Digital exploration of the rectum revealed a mass situated about four inches up the bowel anteriorly, which felt very much like the united halves of an open clamshell, the pieces being sharp and exposed. Extreme care had to be used to avoid cutting or injury to the examining finger. The tissues in which the mass was embedded were greatly hypertrophied. A few small pieces of bone were removed at this time, but it was soon evident that the larger mass could not be extracted except under general anesthesia.

The patient, therefore, was admitted into the Polyclinic Hospital, and under ether the sphincter was dilated and the mass of bones removed, which proved to be in large part frontal bones. It was only by the exercise of the utmost care and skillful manipulation of the fingers that some of the larger pieces were removed without injury to the patient or surgeon.

The after treatment consisted in cleaning the parts thoroughly several times a day with a 2 per cent. creoline solution.

The patient made an uneventful recovery and in six months gained about twenty-five pounds, and since the operation has had no diarrhea.

The cause of the condition was uncertain. Two causes naturally presented themselves—a dermoid cyst or the product of an extra-uterine foetation. As the essential symptoms of the dermoid cyst were not present, and, in view of the previous history, the opinion was expressed by the writer that her condition was probably due to the latter cause.

CORRESPONDENCE

LETTER TO INDIANA STATE MEDICAL JOURNAL.

THE OPTOMETRY LAW.

INDIANAPOLIS, April 1, 1908.

Editor The Journal: The article in the March number of The Journal by Dr. F. C. Heath upon "Eye-strain and Who Should Treat It" will bear careful reading. We have in this state, as a by-product of recent legislative action, an absurd law placing opticians in the same class as regularly educated physicians and conferring upon them all the privileges in certain lines of practice secured by the medical profession only after a four years' course supplemented by a state examination. The law provides for a so-called "Board of Optometry," which shall examine opticians and issue a license, in the name of the state, to those deemed worthy to practice ophthalmology in so far as it concerns the employment of glasses to relieve ocular symptoms. Nothing in the law refers in any manner to what has heretofore been regarded as peculiarly within the province of the optician, namely, the proper grinding and adjusting of lenses, but the whole trend is to encourage and legalize the practice of one of the most important and difficult departments of ophthalmology by those who are totally ignorant of the first principles of medicine. This is clearly in conflict with the intent of the act governing the practice of medicine and should be taken up by the profession with a view to securing its complete repeal at the next session of the legislature.

The passage of the optometry bill was due to the fact that the profession was not aware of the introduction of such a bill in the House (where it was watched over by a paid attorney) until too late to make an organized effort for its defeat,

and furnishes an added reason for the appointment of a committee by the state society to keep watch during sessions of the legislature for bills inimicable to medical education. The arguments which were convincing to members of the legislature were as follows:

First, glasses are solely used for the purpose of improving failing vision, and no possible harm could come from permitting persons possessing sufficient knowledge and dexterity to so adjust glasses as to make vision clear and distinct from prescribing and selling such lenses. Second, by forcing each optician to have a permanent location the state would be rid of the traveling opticians and the worth and dignity of the "profession" would be raised.

It is easy to see how this at once appealed to the lay mind. It did not occur to the unprofessional mind that many if not most cases coming under the care of the ophthalmologists for the relief of errors of refraction come not because of failing vision but because of some discomfort or disease. Now what has been the result? It is true that a few traveling opticians and dealers in glasses in the smaller villages have been deprived of their means of support and their trade diverted elsewhere, but has the public been benefited? Most assuredly "no." It is a rule of constant application that when one must depend upon his own knowledge for his personal security he is alert, but with the multiplication of supposed safeguards this alertness gives way to a feeling of false security with the most disastrous results. As long as the optician, jeweler and peddler sold glasses they were taken at their proper value, and each patron knowing the limitation of their knowledge acted accordingly, and using his better judgment in case of doubt sought the proper skilled medical advice. But now the state proclaims officially by the grant of a license that the skill and knowledge possessed by the optician represents the highest skill and knowledge obtainable in the state in that branch of ophthalmology devoted to the treatment of disease by glasses. To the mind of the writer this is the most dangerous phase of the whole matter, and the license to "practice" hung upon the walls of shops will eventually be productive of more harm than the justly dreaded ophthalmia neonatorum.

The layman may well inquire where, indeed, is there a "doctor" so trusted by the state that she feels warranted in giving a specific license to practice ophthalmology? To those of us who know how completely the public accepts the government stamp certifying to the purity of foods it will be easy to predict the result of this official misbranding. That this is not a fanciful concep-

tion of the matter is borne out by the subjoined account of a few very recent experiences of the writer, who in each instance was assured by the victim that he had not been treated by "a common doctor" but by a skilled "oculist" as attested by the "diploma" in his store. A recital of a few cases will illustrate the point. One case of glaucoma and two of optic neuritis passing into complete blindness, and two more of chorioiditis with seriously damaged vision, all treated with a promise of cure by "optometrical experts" with glasses. It may be of interest to know that one of the most ardent advocates of the optometrical law had for months a display of nostrums for the treatment of eyes in his show window. Within the last twenty-four hours the writer has had the following instructive and at the same time amusing experience: A lady from a neighboring town brought her little daughter for consultation. The child was wearing glasses fitted, according to the statement of the "oculist," however, to the effect that the left eye was the seat of a "spot" which was rapidly approaching the pupil and would cover it in time if not arrested, but, thanks to Providence, she had sought consultation in time and the glasses prescribed would prove the salvation of the child.

No trace of a spot could be found, but the mother insisted she had seen a white triangular spot over the pupil but a few days since. While debating the matter the child suddenly pointed to my ophthalmometer and exclaimed, "There is an instrument exactly like the one the doctor used on me." Further inquiry showed the child to have been placed in front of the instrument while the "oculist" and the mother looking down the barrel discovered the white spot on the cornea, which, it is needless to say, was the reflection of one of the wires of the apparatus.

Since the passage of the "optometrical law" even the language of the "optometrical expert" has changed. He no longer has "customers" but "patients." Yesterday I received a polite note from one of these "experts" to the effect that I

had some months previously fitted a "patient" of his and that the said "patient" was again complaining and that he (the "expert") had discovered I had made a mistake and suggested I give my consent to having the glasses changed to meet his measurements.

As a startling example of the operation of the law in elevating the tone of the "profession" I quote the following literally as given me by one of the leading practitioners of the state referring to a licensed "expert" in one of the large county seats. "T— C—, pauper, drunkard and vagabond of the town of S—, inmate of the county infirmary, peddles spectacles at times."

At present "Doctors of Optics" are multiplying with startling rapidity, and Chicago seems to be the center from which the supply is being sent over the country. It is becoming a difficult matter for a young man to spend a week in the "Windy City" without returning as a "Bachelor of Tonsorial Art" or a "Doctor of Optics."

It certainly is time for the profession to take up a vigorous and systematic fight for the repeal of this vicious law, especially as a circular has recently been issued by the Optical Society of the State of Indiana, calling attention to the work of the committee of the A. M. A., headed by Dr. Lucien Howe, and urging its members to unite not only to prevent the repeal, but to strengthen the law which is now being menaced by the medical profession. In my judgment, the fight for repeal should not be left to a general committee of the state society, but should be taken up by the oculists themselves, as they are the ones best fitted to furnish data necessary to educate the lay members of the legislature. By concerted and sustained action on the part of the oculists of the state, contributing necessary funds for legitimate expenses, keeping careful records of cases treated by these "experts," together with the results, and holding to a campaign of education, I feel there will be little doubt of the outcome.

FRANK A. MORRISON.

STATE BOARD NEWS

GROSS IMMORALITY AS APPLIED TO MEDICAL PRACTICE.

The decision of Judge Dillon in the Rose case sustains our contention that in matters medical the State Medical Board is the only authorized body to determine what should constitute gross immorality, just as in matters legal the term "un-

professional conduct" is determined. In either case, however, the evidence should be satisfactory or so clear that prejudice could not be charged. In regard to the latter, Judge Dillon said in part:

"As to the charge itself, while it may be conceded that the physician might for some purposes and under some circumstances assume two names,

yet there can be but one rational and natural meaning given to the charges made in this case. The charges are made against the plaintiff as a physician in his quasi public character as such. Secondly, it charges that he maintained a physician's office under the name of Doctor Justin, and at the same time maintained an office under the name of E. J. Rose, intending thereby to perpetrate a fraud upon the public. This charge I think is sufficiently definite, and charges, as a matter of fact, an act which, with reference to his profession and the law governing the same, constitutes gross immorality."

The Ohio Sanitary Bulletin, edited by the Secretary of the State Board of Health, in the April, May and June numbers, under the caption, "Health Legislation," has this to say: "It behooves those who assume to lead in health matters to carefully survey the ground and not to follow uncertain paths that lead only to disappointment. Faddists may be useful in starting discussion, but they never should be permitted to direct health movements."

The article closes with an omnibus claim for medical legislation during the last session of the Legislature.

This would appear to be intended as a reflection upon the work of the State and Auxiliary Committee of Public Policy and Legislation, and is worthy of its author. The attitude displayed is not respectful to the organized medical profession, nor are the claims made substantiated by the facts.

Are the present State Board of Health and its Secretary representative of the medical profession? Their attitude in the past would not appear so; it is sincerely to be hoped, however, that in the future they will work together in harmony with the legislative committee of the State Association, subordinating any personal differences, if such there be, for the common good.

DOCTOR FACES A MURDER CHARGE.

Doctor Norman M. Geer of Cleveland, whose record with the criminal courts dates back to 1896, was arraigned before the police court of Cleveland on July 21 charged with murder in the first

degree. It is alleged that the body of a well-developed baby boy was found in the stove in the doctor's office, partly burned, and evidence of its having been struck on the head before being thrust into the stove.

Geer's certificate to practice medicine was revoked in 1903, but he went on practicing as before, and although he has been indicted three times since for illegal practice, the State Medical Board has been unable to bring the cases to trial.

Prosecutor McMahon of Cleveland has repeatedly continued these cases without apparent reason and some months ago declared that he had done so because of the apathy of the board in the matter.

To this charge the board through its President, Dr. Baxter, hotly replied. A circular letter was sent to all physicians in Cuyahoga County familiarizing them with the facts that no action was taken by the prosecutor. From the articles recently published in the Cleveland dailies it would seem that the prosecutor had much to explain.

The criminal record of Geer follows:

April 7, 1896, indicted for illegal operation on Maud Allen; sentenced June 30, 1896, to two years in prison; case returned for new trial December 24, 1896, by Circuit Court; never brought to trial again.

June 5, 1896, indicted for criminal operation on Carrie Rinkle; case never brought to trial.

November 13, 1903, indicted for unlawfully practicing medicine; continued from term to term and nolle by prosecutor in 1904, without trial.

April 29, 1905, indicted on same charge; continued for six terms of court, and finally nolle by the prosecutor without trial.

June 17, 1905, indicted on same charge; released on \$500 bail, continued ten times, and never brought to trial.

Arrested 1907 for causing death of Mary Werner, seventeen, criminal practice; affidavit charged form of offense not charged against him by girl; grand jury refused to return bill on case as presented by prosecutor.

July 20, 1908, arrested for murder of baby boy, parents unknown, and attempted cremation of remains.

MEDICAL ECONOMICS

The endorsement of C. A. L. Reed's candidacy for United States Senator by the A. M. A. would indicate the policy of the profession to inject medicine into politics, rather than to inject politics into medicine. Dr. Reed stands for the highest ideals in public sanitation. His services as chairman of the National Legislative Council alone is sufficient warrant of his ability to represent Ohio in the United States Senate. Since American Medicine endorsed Dr. Reed the Ohio profession should make special effort to secure his election by electing to the Ohio Legislature men with a Reed badge.

Now that a legislative fund is available, hereafter during sessions of the Legislature all bills of any interest to the medical profession will be printed and directed to the Auxiliary Committee. Heretofore these bills were not available in sufficient numbers. Being so necessary to the work of this committee, a failure to secure the bills was a disappointment and cause for complaint. Better organization will meet the demand promptly hereafter.

A Chicago physician claims that in twelve years the field of medical practice has been reduced 20 per cent. in that city, due to the advance in medical science. This is true everywhere, and, strangely enough, the people did not help to bring about this great improvement in the public health. They were not interested in the activities that resulted in the promotion of public hygiene—pure water, unadulterated food and drugs and dairy restrictions—which physicians advocated often in opposition to popular opinion, especially if in opposition to business interests. Medicine is not a commercial enterprise, but a science and an art whose principles of organization are identical with the medical and sanitary interests of the people, whether the latter realize and appreciate the fact or not.

The city of Columbus is enjoying the benefits of a milk commission, under the auspices of the Columbus Academy of Medicine. The capital city was a little slow in responding to this call of medical economics for bottle fed babies. The

splendid beginning promises well for this altruistic work.

Every city or village with a veterinarian chemist and bacteriologist and a county medical society in alliance with the A. M. A. is entitled to a milk commission and the benefits of a "certified milk." If such a community fails to secure this dairy blessing, the continued high death rate from preventable disease among infants must be placed to the negligence or ignorance of the people and the lack of sanitary organization on the part of the Medical Society.

MEDICAL SOCIETIES IN CITIES.

The natural evolution toward sectional work in medical societies of the larger communities of physicians is witnessed in the formation of eye and ear clubs, general practitioners' societies, local sectional medical societies, etc., aside from the county organization. This evolution along natural lines should be anticipated and provided for by making the county organization what its name indicates. As a component of the state and national organizations, the county society should divide its work into sections to meet the demands of members and diversified interests. There should be general meetings at least once a month, and sectional meetings weekly. To clear the atmosphere for uninterrupted scientific work, all business and executive work should be vested in a council or executive committee, in numbers of members to make it fairly representative, with full power to act. Formation of section facilitates post-graduate work and interests "many men of many minds." The specialists of a large city naturally dominate the character of the proceedings in the non-sectional county organization. Not all practitioners are satisfied with general meetings devoted largely to special branches, and the specialists are not especially interested in meetings given to general medicine. Hence, the differentiation by the formation of associations outside of the county organization. Many cities exemplify the new order of things to the honor and glory of uniting the profession in numbers, interest and benefit, by the formation of sections. Segregation first; then segmentation.

A very important requirement of a board of health is the moral and professional support

given it by the medical profession. The public health interest in every community is an index to medical organization. The prevention of disease is the highest function of medicine. The medical society in every community has a natural interest in sanitary administration and should take special pains to counteract the political system by maintaining sanitary organization on the merit system. A bit of attention given to the complexion and conduct of public health authorities and timely representation to appointive power by representatives of the profession can promote its own integrity by looking after the public weal. Medical economics are the cardinal virtues of medical organization, well expressed in the maintenance of a board of health.

The independent non-partisan system of local health boards in Ohio provided by the code laws of 1902 was controverted by a partisan amendment in 1904, which gave city councils authority to abolish boards and to place the public health service in the hands of the service boards. What a travesty upon sanitary administration in these days of science! Bacteriology and disease prevention in the hands of service boards! Political wreckage of the public health service is seen in every city. Good citizens and good physicians will first undo the partisan amendment and then see to it that sanitarians rather than politicians are appointed to sanitary offices.

A statistician makes a showing of seventy-eight deaths and 2594 injuries as a result of the celebration of the Fourth the country over. Ten of these deaths and 125 injuries occurred in Cleveland. The sacrifice of life and limb to the ostensible celebration of our natal day has rendered this mark of patriotism the sign of foolhardy death and destruction. The thousands of sick people suffer aggravations, and many well people are tortured by the hideous noises made by the hoodlum class, who seize upon the occasion as a license to molest the public. The prevention of disease and death demands of the state the enactment and enforcement of such laws as will compass our exhibitions of patriotism with a show of civilization and protection of life and health of the citizen. The State Medical Association, through its legislative organization, stands for such prevention and protection.

The public health defense and the regulation of medical practice are considered so important to

the public and the profession that each is placed in charge of a state board. These boards are the expressions of professional interest; they are the children of the medical profession, and laws relating to their functions and activities are based upon medical standards and constitute state medicine.

The state boards are the means of securing to the people the fruitage of professional effort. The benefits of preventive medicine are thus distributed to the people, and the regulation of the practice of medicine prevents fraudulent action and the spread of communicable disease in the hands of incompetent practitioners. These two boards are indices to the worth and character of the medical profession, and are, or should be, the servants of the organized profession.

The State Medical Board of Registration and Examination represents the schools of practice. Its component members and secretary are actively engaged in working out the highest general welfare, representing and co-operating with the profession as a whole.

The State Board of Health has not seen fit to recognize any such relations, preferring rather to work along independent lines, and showing a tendency to the formation of a close corporation. No state board representing medical interests can long flourish without the support of the medical profession; such boards should and must co-operate with medical organizations in order to accomplish the greatest good.

It is difficult to understand the present relations between the State Board of Health and the state organization. If it owes alliance to the organized medical profession, its actions do not so testify.

The dual standard of morality for the sexes, as all medical men know, is not based upon physiological or hygienic necessity of the individual, according to the prevalent belief among the laity. Whatever the origin of this belief, it has served as a license for physical indulgence. This license is granted to one sex only. Since there is no necessity for such immorality on the part of either sex, why should there be two standards? Let us give the boys and girls a square deal. If a license to "sow wild oats" is granted the boys, why not grant the same to the girls. If a round of revelry by night is granted the son, why not extend that privilege to the daughter? Should the tether of sexual relations be made longer for men than for women? If so,

why? The old fallacy of physiological necessity is the devil's diplomacy with half baked medical advice and will no longer serve as the livery of false doctrine with students of human nature. Young men will not be permitted longer to sow wild oats and hide behind the doctrine of physical necessity. If this doctrine were a correct guide, to moral conduct, the sisters of these young men would be privileged to sow wild oats in the same fields of physical indulgence.

The fact should be stated that sexual congress is no more a physical or hygienic necessity for the young man than for his sister. The same health and moral laws apply to both. Celibacy is a virtue rather than an offense. It is not a moral or hygienic digression. Neither self restraint or self indulgence is the evil claimed by the wild oats theory. In the name of right living, young men cannot hide behind the doctrine of hygienic necessity for separate moral standards for the sexes.

The atmosphere of sexual life, aside from marriage, should be cleansed of its errors in the lay mind. The false doctrines and bad advice in support of moral standards for the sexes should be exposed to the light of truth. Medical men should teach that a clean sexual life, one of continence, as proved by the personal experience and writings of Dr. Horelock Ellis and by students of human nature everywhere, is in harmony with the highest physical and mental capacity. The fallacy of the wild oats doctrine and its hygienic necessity should be exposed. Young men and their mothers should be taught these facts as coming from vigorous, virile men of achievements, such men as Lyman Abbott, Edward G. Janeway, Edward L. Keys, Wm. Osler, Howard Kelley, Bolton Bangs and others. In spite of such medical authority and the experience of strong young manhood in multiple denying the wild oats doctrine as a physiological necessity, thoughtless physicians are still teaching the fallacy.

The intelligence of lay people and magazines is making war upon this reckless teaching of medical men. The medical profession is often put

upon the defensive by the reckless promulgation of a few of its members. Mr. Bok, of the Ladies' Home Journal, in the June issue, teaches the mothers and the youth of the land some useful hygienic facts related to sexual life and the wild oats fallacy. Vote of thanks is hereby extended Mr. Bok for his wisdom in educating home life in the proper recognition of sexual hygiene, with one rule for both sexes.

BOOK REVIEWS

"THE INTERNATIONAL CLINICS." The 18th Series, Vols. I and II. A quarterly of illustrated clinical lectures and especially prepared articles on Treatment, Medicine, Gynecology, Orthopedics, etc., by leading members of the medical profession throughout the world. Edited by W. T. Longcope, M. D., Philadelphia. Published by J. B. Lippincott, Philadelphia and London.

The eighteenth series of the International Clinics bids strongly for the continuance of popularity long since attained. Volume one contains many excellent articles of which the opening one by Laurason Brown on sanatorium construction and general management is certainly very timely, and if its suggestions would be more widely followed the sanatorium idea would receive much greater general support.

Boggs' article on Blood Coagulation brings out some very well supported therapeutic suggestions for the treatment of some obscure and obstinate conditions which are deserving of attention.

Fordyce on the Value of the Opsonic Test brings further evidence in support of Wright's theories, but his work emphasizes the great necessity for thorough familiarity with the technique if one would wish to secure really good and dependable results.

Somerville, in discussing Mucous Colitis, quotes the theories of Roger and Fremolieres, which seem most plausible in accounting for the production of the disease and indicating the treatment.

Under surgical topics, Deaver discusses the progress of gall-bladder surgery; Felton gives his results in operations for perforated gastric and duodenal ulcers, showing a high mortality still, due to delay in bringing patients to opera-

tion; Frank draws attention to the possibility frequently of organic surgical conditions of other abdominal viscera with misleading subjective symptoms of digestive disturbance.

There are numerous other excellent articles together with the valuable resumé of the progress of medicine during the preceding year, including new treatment by A. A. Stevens, strictly medical developments by D. L. Edsall, and surgical progress by J. C. Bloodgood.

Volume II continues the same general plan.

Hallopeau, on the Treatment of Syphilis by Atoxyl, would indicate an addition to the therapeutics of this disease. The toxicity of the drug, however, will render its slow acceptance into general employment.

Turton, in Two Years' Experience of Treatment by Bacterial Vaccines, gives some very encouraging results of this method. The reporting of series of this sort is extremely important, as only by this means may the true value of a new method of treatment be rightly approximated.

Dillers' article on Pain as the Expression of Psychic State will be of interest to a great many practitioners who often meet and are frequently greatly perplexed with just such cases as described.

Under surgery, John Roberts discusses Reconstructive Surgery of the Face in a manner which shows that some progress has been made along these lines, but there remains much still to be desired.

Other interesting articles are: Cumiston on "Perinephritic Abscess in Children"; Mummery on the "Symptoms and Diagnosis of Cancer of the Large Intestine," and Willmoth on "Treatment of Varicose Ulcer and Varicose Veins of the Leg."

Under the headings of Gynecology, Ophthalmology, Dermatology, Orthopedics, Pediatrics are also excellent articles of interest to specialists. Under the last department, Pathology, is a very interesting paper by Simon on the Pathology of Malignant Disease.

"PRACTICAL LIFE INSURANCE EXAMINATIONS, WITH A CHAPTER ON THE INSURANCE OF SUBSTANDARD LIVES." By Murray Elliott Ramsey, M. D. J. B. Lippincott Company, Philadelphia and London.

This small but very practical work is based upon Dr. Ramsey's many years' experience as a life insurance examiner. While, of course, little of it is new, the longfelt want and the way in which the subjects are condensed and presented make it a very valuable guide. The manner in which he takes up the different conditions in detail gives one a very clear idea of what the best insurance companies expect of their examiners. We feel that there has long been a demand for a short and concise work on this subject, and in many ways this volume fulfills this want.

BIER'S HYPEREMIC TREATMENT IN SURGERY, MEDICINE AND ALL THE SPECIALTIES. A Manual of Its Practical Application. By Willy Meyer, M. D., Professor of Surgery at the New York Post-Graduate Medical School and Hospital; and Professor Dr. Victor Schmieden, Assistant to Professor Bier at Berlin University, Germany. Octavo of 209 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$3.00 net.

The references in medical literature to Bier's Hyperemic Treatment have been so numerous as to create a considerable demand for a practical textbook, which the above-named work excellently supplies.

The authors are enthusiastic devotees of Bier's system and rather prone to make it universally applicable. The present acknowledged field of usefulness is undoubtedly a wide one, and therefore a manual of this character, clearly written, with the indications and methods of application so lucidly described, will be widely welcomed by the general profession.

The suggestion for use in general diseases are of interest and doubtless will lead to trials on a wide scale, which may develop even greater possibilities of the method.

The book is profusely illustrated and handsomely printed.

CURRENT MEDICAL LITERATURE

INDIRECT PRODUCTION OF TYPICAL PAIN AT McBURNEY'S POINT.

By Dr. T. Boosing (Zentbl. f. Chir., 1907, No. 3; Ref., Fortschritte der Medizin, April 10, 1908, p. 302).

"In extreme sensitiveness of the abdominal parietes, examination at McBurney's point is sometimes impossible. If, under these circumstances, pressure be made in the left iliac fossa and the hand be passed upwards along the descending colon towards towards the flexure, the intestinal contents will be pressed into the cecum. Typical pain is caused at the location of the appendix as the result of increased pressure. Pain is induced only in appendicitis, and the method may be employed as a means of differential diagnosis. Direct palpation may thus be avoided in cases in which it is impossible or dangerous."—Via Post Graduate.

CHRONIC OBSTRUCTION OF DUODENUM BY THE ROOT OF THE MESENTERY.

Codman (Bost. Med. and Surg. Jour., April 16, 1908) shows that by reason of man's upright position the transverse duodenum is more or less constantly compressed by the root of the mesentery. He believes that in certain instances this may cause complete occlusion of the gut; that this occlusion may cause the muscular efforts of the duodenum to force the pylorus, bringing duodenal secretions in contact with the stomach mucosa. Such a stasis would favor bacterial invasion of the tissues. A knowledge of this state might very well alter the present conceptions of etiology in such conditions as "hyperchlorhydria, nervous dyspepsia, duodenal and gastric ulcer, pancreatitis, cholelithiasis, persistent vomiting after laparotomy and in pregnancy and excessive fluid drainage from wounds in the common duct and duodenum."

Reasoning along the same lines Codman (Bost. Med. and Surg. Jour., Feb., 1908) suggests in an article on perforating duodenal ulcers, that these ulcers are probably due to the stasis of food passed to the duodenum but prevented from passing from it by reason of a partial chronic obstruction of the duodenum where the superior mesenteric vessels cross this gut.

His anatomical argument is sound; mesenteric ileus does occur and there seems no reason why such chronic obstruction should not be a prime

factor in the conditions mentioned. The matter is worth thought.

ADENOIDS AND TONSILS—WHY NEGLECTED?

Every now and again we all see children suffering the inconvenience and detriment of enlarged tonsils and adenoids. Occasionally we are chagrined to learn that some physician has said, "they will outgrow it." Outgrow what? The tonsils and adenoids, perhaps, but *not the facial deformities* which they cause. From youth to old age they will go through life with pinched nose and protruding teeth, a lasting testimony to a childhood sinned against.

Aside from susceptibility to tuberculous infection of the glands of the neck which enlarged tonsils have been proven to favor, parents should be taught the facts which Turner (Wisconsin Med. Jour., May, 1908, p. 665) has briefly summarized:

"Neglect of respiratory obstruction in a child can result only in facial deformity that must be carried for life; hollow cheek bones, irregular teeth, and possibly a life habit of mouth breathing. The sense of smell is interfered with. The teeth in mouth breathers decay early. The throat, larynx, bronchi and air vesicles suffer from the exposure to the air that is dry and often of improper temperature. Sleep is disordered. Nasal and accessory sinus catarrh exists. Hearing is impaired and aural suppuration not unlikely. The voice may be permanently injured. Digestion is impaired by poor mastication and by swallowing catarrhal discharges. Mental and physical energy are decreased and the patient given a serious handicap in his or her life work."

And physicians must learn that it is time to operate as Marshall (Penn. Med. Jour., June, 1908, p. 725), puts it:

"When two successive attacks of tonsillitis have followed in close succession; when two successive winters have not been free from tonsillitis; when chronic inflammation is a source of constant irritation and reflex cough; when cheesy crypts are a source of foul breath; when inflammation of tonsils is repeatedly preceded by cervical swelling and general infection; or when hypertrophy obstructs breathing or Eustachian tubes."

Let's hear no more of: "They'll outgrow it."

ANEMIA NOT DUE TO LACK OF SUNLIGHT.

We frequently think of anemia as due to lack of sunlight when probably it is not lack of light but other conditions which are the cause. Howe (Bost. Med. and Surg. Jour., May 21, 1908, p. 794) in his "Medical Notes on Northern Alaska," says:

"I kept records of the hemoglobin of a party of six white men from September to March, covering the whole period while the sun was away. There was no diminution of hemoglobin attributable to the absence of sunlight. Similar experiments were tried on the Jackson-Harmsworth expedition to Franz. Josef Land, the Duke of Abruzzi's expedition and Scott's Antarctic expedition with the same results. In no case was it found that the absence of sunlight caused anemia."

WHOOPIING OF PERTUSSIS STOPPED BY INJECTING A SOLUTION OF ANTIPYRIN INTO THE LARYNX.

Amelia Fendler (Jour. Obs. and Dis. Wom., etc., June, 1908, p. 915) reports three cases cured in seventeen, thirteen and seven days, respectively, by this method. A two per cent. solution of antipyrin is used and is administered in from ten to twenty-five drop doses daily, as follows:

"The child is placed upright on the mother's lap, the head resting upon her chest. With one hand the mother firmly secures the hands of the child, with the other she steadies the head. The operator's hands being free, the tongue is lowered with a depressor in the left hand; with the right the injection is made by means of the glass instillation tube devised by Dr. Yankauer. The tube containing the solution is passed backward behind the uvula and the fluid quickly injected into the larynx."

[The instillation tube is a long medicine dropper with a short, right-angled beak. The distance to which it is introduced back to and over the larynx being regulated by an adjustable cork sliding on the dropper, which impinges on the teeth.—Ed.]

INJECTIONS OF DEAD GONOCOCCI OF VALUE IN CHRONIC CASES.

Irons (Archives Internal Med., May, 1908, p. 433) gives the following summary of an investigation of "vaccine" treatment of systemic gonococcus infections: "Systemic infections tend to spontaneous recovery. Certain cases of gonococcus

arthritis do not recover quickly (in a few days or weeks) but pass into a chronic stage which may last months or years. In the acute cases immunity develops rapidly and clinically little benefit appears to result from injections of dead gonococci. In the chronic cases the mechanism of immunity fails. When dead gonococci are injected a reaction frequently follows, with an increase in the constitutional and local symptoms. This is followed by a period of improvement. Clinically, in a number of chronic cases, the injection seemed to be of distinct value."

OPHTHALMO-TUBERCULIN REACTION.

Calamette observed that when one drop of a 1 per cent. glycerin free aqueous solution of tuberculin is instilled into the conjunctival sac of tuberculous persons there follows a characteristic, local inflammation, which may be used as a diagnostic sign in determining suspected cases. Floyd and Howes (Jour. Med. Research No. 4, Vol. XVII) prefer to use 0.33 per cent. and 0.5 per cent. solutions. They instill first into the left eye with the weaker solution and in event of no reaction repeat with the stronger solution in the right eye. They believe the hypodermic method of testing with tuberculin by observing the subsequent rise of temperature is more accurate, but state that the simplicity of the ophthalmic test and the fact that it may be used in acute febrile states where the old method cannot be used, make it a valuable diagnostic aid. Smithies and Walker (J. A. M. A., Jan. 25, 1908), state that the exact dosage, whether a large or small dose should be instilled, is as yet undecided. Furthermore the appearance of the reaction does not indicate an active process. Nor has sufficient data been acquired to determine the relative value of the subcutaneous injection (febrile test); the skin reaction (vaccination test); and the ophthalmic reaction.

Morelli (Wiener Klin. Wochenschr, 1908, No. 3) holds that the diagnostic value of the ophthalmic reaction is small. The reaction may be due to any obsolete tuberculous focus and not to an acute trouble. Its absence points against tuberculosis, but is *not conclusive*.

Rosenau and Anderson (J. A. M. A.) have shown that there is developed a local hypersensitiveness to the instilled tuberculin. An eye, previously instilled without reaction often reacts, even violently, to a subsequent instillation. This may occur as long as 51 days after the first instillation and lead to a false diagnosis or to the belief that the tuberculin first used was inactive.

Occasionally there occur severe reactions in the conjunctivae and eye which require some time for recovery. Dr. Loper (*Revue Franc. de Med. et de Chirurgie*, 1908, No. 2), instances severe conjunctivitis, especially in children; superficial ulcerations of the conjunctiva; keratitis and even irido-cyclitis.

In a very interesting investigation and review of tuberculin reactions and their diagnostic values, Louis Hamman (*Archives of Internal Medicine*, June, 1908) gives the present status of these clinical tests. He shows definitely that any tuberculin test must be interpreted in the light of other clinical findings, and that unless definite changes in the focal physical signs (in pulmonary cases) occur on the injection of the tuberculin, the febrile reaction does *not assure* that the patient has tuberculosis. However, the occurrence of such changes in physical signs give a positive diagnosis and tell something of the extent of the disease. Discussing the cutaneous and conjunctival tests he says: "Both of these methods depend upon the utilization of the local reaction as an index of tuberculin hypersensitiveness, without the production of fever, constitutional symptoms, or focal reaction." He finds, as did Von Pirquet, who announced that local inflammation, infiltration and even vesiculation may follow inoculating an abraded skin (after the manner of vaccination) with a drop of tuberculin, that this test is so sensitive as to be inapplicable except in children, for almost all healthy adults react to it. In conclusion he says: "The cutaneous reaction is too delicate an indicator to be of any value in diagnosis unless the reaction be negative, which it seldom is in adults. The eye reaction gives results more nearly in accord with clinical experience, but by no means absolute certainty. We do not feel that it can supplant the subcutaneous method. It will be well for some time to use the two together, but *not* simultaneously. The eye inoculations should precede the subcutaneous by at least a few days."

From the foregoing it will be seen that the status of tuberculin tests is not such as to make their use in general practice an exclusive means of diagnosis, and that when used considerable care must be taken to properly interpret the results.

THE EARLY DIAGNOSIS OF UTERINE CANCER.

Cronson (*The Archives of Diagnosis*, April, 1908, p. 185), reviewing the recent literature on

cancer is due to the patient's ignorance, disinclination or refusal to be examined and the physician's delay in examining patients who have the the subject, says the failure to recognize early symptoms of the disease. As the course of the disease is rapid and passes beyond the limits of the uterus in a period varying from thirty days to six months, the physician should make an exhaustive examination if the following suggestive signs are present:

"1. Any deviation of the menstrual period in the way of an excess or an inter-menstrual discharge in women above thirty years of age. The most suspicious forms of bleeding are:

"a. A mere show after a slight exertion, defecation or coitus.

"b. Increasing length of period even only for one day more than is the patient's custom.

"2. Exacerbation in amount or change in character of the discharge in a woman who may have had a simple leucorrhea for months or years. A free aqueous, acrid or blood tint discharge is especially portentous.

"3. A leucorrheal discharge in a woman who has never suffered from it before.

"4. Every atypical discharge in a woman after establishment of the menopause should elicit special care in examination.

"5. Pelvic pain of more than a few days' duration is reason for examination, although pain is very seldom an early symptom of cancer."

Furthermore, that uterine cancer shall be early recognized, the general public must be told of the early symptoms and be taught to seek medical aid early. Patients are ignorant of the main features of the disease and do not realize "that it may occur in young women; that the main symptoms are abnormal hemorrhage and discharge; that it is not as a rule attended by pain in its early stages; and that it is then curable by operation involving little risk to life. Patients regard hemorrhage and discharge at the menopause as of little consequence, when every such case requires immediate examination. Any hemorrhage from the uterus after the menopause is in the majority of cases due to cancer. Patients do not know that it is impossible to make a diagnosis of cancer without a vaginal examination. In some cases, especially in widows, the disease may exist for some time without giving rise to symptoms. Every suspicious case should be examined locally."

COUNTY SOCIETIES

FIRST DISTRICT

The Adams County Medical Society met at West Union June 24. The following officers were chosen:

President, R. W. E. Irwin, Manchester; Vice President, T. C. Crawford, Dunkinsville; Secretary-Treasurer, O. T. Sproull, West Union; Board of Censors, J. W. Guthrie, Manchester; J. W. Irwin, Winchester; J. M. Brooke, Peebles.

The meeting was called to order at 11 a. m., with the President in the chair. After attending to the usual routine of business the following papers were read and discussed:

"Cerebro Spinal Meningitis," R. W. Irwin. The paper was a detailed report of an epidemic occurring at Manchester last January and February.

Case I, a girl of 14, began January 30, died on fourth day.

Case II, girl of 10, began February 4, died on fourth day.

Case III, began a few days later in a strong man of 35, death occurring in twenty-four hours.

Case IV, boy of 14, began on February 15, died on fourth day.

Case V, woman of 40, began on February 28, death occurring in less than twelve hours.

Three or four other cases occurred in the community which he had seen; all ended in death.

Hemorrhagic spots occurred in all the cases.

The cases seemed to have no connection with each other or with any known source of infection.

Treatment availed nothing. He was unable to obtain the Flexner serum. Some quarantine measures were easily enforced. Private funerals were held. None of the other members present had seen the disease, and the discussion was confined mainly to questions.

"Gallstones," O. W. Robe, Portsmouth. He gave a resumé of the most recent thought, insisting that medicines are of no avail except for the relief of pain and of accompanying conditions. Operation is the only cure except in those cases in which

nature operates by ulcerating or absorbing a passage for the stone when it is too large for the ducts.

He gave histories of a few cases he had seen and exhibited specimens from them. Two of the specimens are large and had been obtained from the stools: One stone is $2\frac{3}{4}$ by $1\frac{1}{4}$ inches; the other $1\frac{5}{8}$ by $\frac{7}{8}$ inches.

Discussion—Dr. Bunn wished to know how large stones enter the bowel.

Dr. Crawford was pleased with the paper. Related a case where a good many small stones had passed and morphine had always relieved the pain; finally an attack came on and morphine did not relieve; a very large stone passed, but still no relief. Peritonitis developed, ending in death.

Dr. Purdy reported a case diagnosed as gallstones over twenty years ago, by several physicians, but no stones ever found; patient living, but in poor health.

Dr. Irwin reported a case diagnosed gallstones, but the post-mortem showed carcinoma and no stone.

Dr. Tests stated that in his experience jaundice was usually present.

O. E. McHenry thought Dr. Purdy should have found stones in his cases. He uses sodium succinate and gets stones. He reported some interesting cases. Insists on importance of keeping bowels open.

Dr. Wickenham has not much confidence in cathartics.

Dr. Gaston reported a case where a large stone passed.

J. B. McHenry reported a case in which the post-mortem showed a very large stone, yet no symptoms were ever complained of.

Dr. Robe, in closing, was pleased with the free discussion and answered questions that had been asked. Stones get into the bowel when large by ulcerating or absorbing a passage. Insists that many stones thought to have been gallstones are

only "soapstones," and that no one can explain how any drug can remove gallstones.

The President, Frank Smith, delivered his address which was confined to matters pertaining to the welfare of the Society, and thanking the members and others who had taken part in the meetings during the past year.

"Hemorrhoids," A. L. Test of Portsmouth. Dr. Test said in part: That medicinal treatment is only palliative and only to be used in trivial cases, or when operation is not permitted. He only considers operation by ligature and by the clamps and cautery. The first may be used, but he uses only the latter. If you want to make a lifelong friend, operate on him for piles.

Discussion.—Dr. Bunn: In eleven years' service as United States pension examiner, in over 3000 cases all had hemorrhoids. Does not think he ever effected a radical cure with medicine.

Dr. McHenry has operated on a few cases of external hemorrhoids by making an incision and turning out the clot, with good results.

Dr. Wickerham would use clamp and cautery.

Dr. Smith asked about the injection treatment.

Dr. Test, closing, said he does not like the injection treatment. He insists on the advisability of routine rectal examinations.

For internal hemorrhoids, general anesthesia is necessary in operating.

The meeting was well attended.

SECOND DISTRICT

The Clarke County Medical Society recently had an outing day at Fort Ancient. One of the professors of Wittenberg College was present and gave a very interesting talk in regard to this unique Indian fortification.

The Greene County Medical Society had for their guest at their May meeting C. S. Bond, of Richmond. Dr. Bond gave his illustrated lecture on "Tuberculosis" before the society and the students of Wilberforce University in the afternoon, and in the evening before the public.

The societies of Montgomery, Greene, Warren and Butler joined in an outing at the grounds of the Franklin Chautauqua July 14. D. S. Hanson, of Cleveland, read a paper on "Affections of the Cervical Glands in Childhood." He gave the anatomical distribution and relations of the various groups of these glands, and then the most frequent points of ingress for infecting germs. In his opinion the so-called third tonsil is more frequently such a point than the faucial tonsils. The importance of removing promptly these glands when they are a source of infection was emphasized.

T. W. Rankin, of Columbus, followed Dr. Hanson in an address along the lines of the development and present status of our therapeutic measures. The speaker deplored the therapeutic nihilism of the one extreme and the blind, unreasoning empiricism of the other. The address was a very scholarly one and was listened to with much interest.

A chicken dinner was served by a caterer on the grounds, after which President Silver spoke of the work of the State Association and especially of its work in securing legal enactments to secure better physical and moral public hygiene.

President Fess, of Antioch College, was the guest of the societies and gave an impromptu talk. The dominant note of modern civilization, he said, especially in this country, is altruistic service, and nowhere is it better evidenced than in the work of the medical profession in trying to secure for the people better conditions for living.

A number of visitors from Cincinnati were present, among them Dr. Reamy, who received a hearty greeting from his many old friends, who rejoiced to see him recovered from his recent serious illness.

A permanent organization was perfected to secure a regular annual meeting at the beautiful grounds of the Franklin Chautauqua. A goodly number of ladies accompanied their husbands or friends, adding much to the pleasure of the occasion.

THIRD DISTRICT

The Allen County Medical Society met in regular session June 2. The following program was carried out: "Recognition and Prevention of Tuberculosis," W. E. Haner; discussed by Drs. Roush, Dickey, Bennett, Derbyshire, Chenoweth, Johnson and Knesby. "Talk on Iron," S. J. Derbyshire.

The Allen County Medical Society met June 23. The following was the program: "Contagiousness of Tuberculosis and the Treatment," P. I. Tussing; discussed by Drs. Steiner, Roush, Haner, Mumaugh, Derbyshire, Bennett, Rudy, Bice and Tussing.

Meeting adjourned to meet September 1.

FOURTH DISTRICT

"The Surgical Treatment of Tubercular Laryngitis," by Francis W. Alter, M. D., Toledo, O.

In a paper read before the Academy of Medicine at Toledo and Lucas County upon the above subject, Dr. Alter said in part:

"The adoption of surgical methods in the treatment of this affection is twofold in character—first directed towards the relief of, what is rare, an impending suffocation, due to the high degree of stenosis occasionally encountered, in which event we may select the performance of a tracheotomy, or dependence may be placed upon intubation, although the latter is not to be looked upon as the operation of election on account of the pressure of the tube on the highly inflamed and ulcerated laryngeal structures, causing great pain, and to the inability of the patient to tolerate the tube for any length of time.

"In such an urgent situation, then, tracheotomy is the operation of choice, and the opening should be placed well down in the trachea and always done under local anesthesia, the anesthetic agent employed being a 1 per cent. solution of cocaine, and for its blanching effect one-third of the contents of the hypodermic syringe being adrenalin chloride, 1-1000.

"Aside from the relief of dyspnea, tracheotomy is sometimes made with a view of giving the

larynx physiological rest and the stimulating metabolic effect imparted by the increased air supply.

"It is a prerequisite in the performance of all intra-laryngeal manipulations to learn the art of cocaineization well, and particularly does this apply to this class of patients, who for the most part are the victims of profound tubercular dyscrasia, weak and intolerant of pain. Such cocaineization is carried out preferably by the use of a swab, first to the base of the tongue and pharynx, carrying this progressively downward under the guidance of the mirror both above and below the true vocal chords."

Dr. Alter's plan is to begin with a 5 per cent. solution of cocaine and for the larynx proper a stronger solution, as high as 20 per cent., is used to make the operation practically bloodless. This is followed by a solution of 1-5000 of adrenalin chloride. After the affected area has been curetted, the rubbing in of lactic acid over the curetted surface in a 20 to 40 per cent. solution or even stronger aids materially in affecting smooth cicatrization.

"To Dr. Gleitsmann, of New York, more than to any other American writer are we indebted for a full exposition of this subject of surgical treatment of intra-laryngeal tuberculosis, and he summarizes the indications and contra-indications as follows: He recommends that curettement be made—first, in cases of primary tubercular infections without pulmonary complications; second, in cases of concomitant lung disease which is either in the incipient stage or has at least not progressed to softening and hectic conditions; third, it is best adapted for circumscribed ulcerations and infiltrations of the larynx; fourth, for the dense hard swelling of the arytenoid region, the ventricular band, the posterior wall, for tubercular tumors and for affections of the epiglottis; fifth, in advanced lung disease, with distressing dysphagia resulting from infiltration of the arytenoids. Curettement is justifiable as the quickest means to give relief.

"The contra-indications are: First, advanced pulmonary disease and hectic; second, dissem-

inated tubercular disease of the larynx, leaving little or no area of healthy tissue; third, extensive infiltrations, producing severe stenosis, when tracheotomy is indicated."

Dr. Alter thinks the prognosis of laryngeal tuberculosis is possessed of a number of governing factors, prominent among them being that first we are dealing with a case of primary laryngeal tuberculosis with a fair degree of health back of it, or, secondly, it is a case of laryngeal tuberculosis which has attended upon extensive lung involvement, with a corresponding depreciation of the patient's general health.

In the first instance the surgical treatment of this affection gives promise of the reduction of redundant ulcerations and infiltrations, re-establishes patent conditions, aids in subjugating dysphagia, improving vocalization, and gives a fair promise of good results. These, then, are the favorable cases.

In the case of laryngeal tuberculosis attendant upon pneumonic involvement, surgical intervention is used only where the lumen of the larynx has been so extensively encroached upon by tubercular process as to threaten suffocation, in which our reliance is placed for the most part on tracheotomy.

The Williams County Medical Society held its fourth bi-monthly meeting for 1908 Thursday afternoon, July 9, at Montpelier. The program was as follows: "Acute Peritonitis," E. F. Brandon, Edon; discussion by Drs. Replogle and Schnetzler. "Modern Anesthesia, with Exhibition of Apparatus," E. E. Brown, Stryker; discussion by Drs. Wertz and Walker. "Ocular Manifestations of Tabes," Chas. Lukens, Toledo; discussion by Jas. W. Long and A. E. Snyder.

FIFTH DISTRICT

The regular monthly meeting of the Geauga County Medical Society was held at Chesterland Caves on July 2. A very instructive talk was given by H. J. Gerstenberger, of Cleveland, on "Infant Feeding and Mortality." This was followed by dinner at the Caves Hotel and after dinner speeches.

Orange Pomeroy being the only surviving member of the first medical society held in the county in 1866, a toast was offered in his honor, to which he responded with some interesting reminiscences.

J. S. Davis, of Chardon, was elected a member of the society.

The fifty-ninth regular meeting of the Cleveland Academy of Medicine was held at 8:15 p. m. Friday, June 19, at the Cleveland Medical Library. The following program was presented: "Studies of two cases of paroxysmal haemoglobinuria, with the results of studies of haemolysis in those cases, from the standpoint of the side-chain theory and the production of antihemolysin;" "Some Royal Accouchments," J. C. Reeve, Dayton.

The Erie County Medical Society met at the courthouse on June 24, with Charles Graefe presiding.

The question of a joint meeting with the county commissioners in order to discuss the best means of complying with the new law in regard to tuberculosis hospitals was brought up and left open for further action. A communication from C. O. Probst in regard to the delegates to the International Tuberculosis Congress was also left open for action.

A joint meeting with the surrounding counties in August was proposed, and an invitation for a meeting at Cedar Point was ordered sent to each society.

H. D. Petersen read a paper upon "The Value and Limitations of Blood Examinations." He said: "Within the past few years haematology has established its value in the practice of medicine and surgery. In medico-legal questions as to identification of blood and in questions of physiological action of certain drugs it is of value, aside from its importance in diagnosis.

"In anemias and malaria the condition of the corpuscles is of interest. The biological examination of white corpuscles presents the most interesting chapter in haematology. The differen-

tial counts are essential in physiology, diagnosis, pathology and treatment.

"There is no leucocytosis in typhoid, malaria, uncomplicated cases of tuberculosis (except meningal form), influenza, measles, mumps and leprosy.

"The discoveries of Bier and Wright are indeed very important, as they bring us nearer to the explanation of that something called virus or opsonins which form in the blood, making practically all of the acute diseases self limited; also explaining why one attack of an acute disease produces an immunity for a shorter or longer period."

The subject of rabies was also discussed. The symptomatology of the animal was read; also the best manner of disposal of the dog after a person was bitten.

The fifty-first regular meeting of the Lake County Medical Society was held at 8 p. m. on Monday, July 6. The program was as follows: Reports and presentation of cases; miscellaneous business; "Volvulus of the Intestines," C. E. Briggs, surgeon to Lakeside Hospital, Cleveland; discussion.

Ashtabula County Medical Society held its regular meeting July 4 in the Business College.

B. M. Tower of Conneaut gave a very able paper on "Cardiac Dropsy," which was discussed by Drs. Perry, Leet, Cossett, Palmer and Flower.

The next regular meeting will be in the form of an outing, which will be held in August.

A meeting of the Trumbull County Medical Society was held on Friday afternoon, July 24, at the Warren City Hospital, Warren. J. M. Ingersoll, of Cleveland, addressed the society on a topic of especial interest to the general practitioner in ear, nose and throat work.

SIXTH DISTRICT

The July meeting of the Stark County Medical Society was held in the mayor's office, Canton, July 21. The president of the society, J. C. Tem-

ple, of Alliance, was in the chair. The lecture by R. J. Pumphrey on "Infantile Diarrhea" was very attentively listened to and was followed by a pretty full discussion of the summer bowel troubles of infants and young children.

The paper on "Tuberculosis of the Kidney" by E. G. Myers, of Canton, discussed the subject from the diagnostic and operative point of view. The paper and the discussion which followed brought out many valuable suggestions.

The subject of "Squint in Children: Its Early Treatment," was well presented by E. H. Schild, of Canton, and the discussion brought out but little difference of opinion.

Interesting cases were reported by L. A. Buchman on "Sinus Thrombosis," by S. B. Dudley on "Cocaine Poisoning" and by W. S. Taylor on "Acute Tuberculosis."

Geo. H. Matson, secretary of the State Medical Board, addressed the society on some of the difficulties encountered in an attempt to secure the enforcement of the laws regulating the practice of medicine owing to the sympathy of the authorities, for political and social and perhaps other reasons, with the law breakers. This is a very grave disease and is sure to be fatal to our system of government unless preventive and curative measures can soon be devised.

There were about thirty-five members present at the meeting. The local profession was not nearly so well represented as one would expect.

The society meets on the third Tuesday in January, March, May, July, September and November, and notices of each meeting are sent to each individual member.

Resolutions were passed by the Society in regard to the death of D. W. Gans, a resident of Massillon, which occurred May 17.

SEVENTH DISTRICT

The Monroe County Medical Society met in Woodsfield July 16. Starling Loving, of Columbus, was present and read a very valuable paper on "Diagnosis." The paper, as well as the doctor's presence, was appreciated by the Medical Society. The society extended a vote of

thanks to Dr. Loving and made him an honorary member.

His paper follows in part:

The essayist emphasized the importance and difficulty at times of this branch of the art of medicine, and that proficiency could only be obtained by years of unremitting care and the constant use of trained faculties.

He further stated that the subject was so great that time only permitted the review of some personal cases which presented unusual or difficult phases, and continued in part:

In Ohio we have typhoid fever, the malarial fevers, the eruptive fevers, croupous pneumonia, erysipelas, diphtheria and acute rheumatism as the more common specific febrile affections. More study and labor have been expended on typhoid fever than on the Constitution of the United States, and deservedly, because of its greater importance. Yet, while its symptoms are well known and characteristic, not infrequently one has considerable misgiving in making a diagnosis. Also in its course may develop lesions of the gravest import which may not always be forecasted nor their import determined. As is well known, in 2 or 3 per cent. of all cases the peritoneum gives way, and the resulting escape of the intestinal contents almost uniformly is followed by death. This dreaded accident may happen in any case at any time, and ordinarily it is impossible to foretell its occurrence or to recognize the extent of the lesion, or even sometimes just when it has occurred.

He illustrated with description of four cases under his observation in which in the past year peritonitis began gradually and progressed toward death, but in no instance was there a sudden accession of pain, great decline of temperature or profound shock with which perforation is usually ushered. Autopsies revealed in each one a very small perforation in the ileum.

Osteomyelitis is rarely associated with typhoid fever, and when it does occur usually is a sequel rather than a complication, although it may be present during the first four weeks. Its onset is often gradual and insidious, though sometimes abrupt, with marked and distinctive symptoms.

When the former, and appearing during the febrile period, its differentiation from a femoral phlebitis may be difficult.

In November such a case occurred in my service at St. Francis Hospital. The patient, a man of thirty-eight, was admitted with a diagnosis of typhoid fever, in the fourth week of his illness. His attending physician drew attention to a swelling of the left thigh, which he stated to have appeared five days previously and due in his opinion to phlebitis. The onset of the swelling had been accompanied by a dull pain, a chill and increase of fever. The leg and thigh were more swollen than usual in phlebitis, and there was some tenderness, but I could not find the enlarged and indurated vein usually so distinct in phlebitis. I thought it might be concealed by the general swelling, especially since in a few days the temperature and other symptoms declined and convalescence appeared to have begun. The leg continued swollen, and in a few days I detected fluctuation and obtained pus by means of an exploring needle. Incision brought out an ounce or two of pus, but abscess may follow phlebitis, hence osteomyelitis was not considered. Several days later the patient got out of bed and took a few steps, when his leg gave way, and he fell to the floor. Examination showed a fracture of the femur in the middle third, and subsequently at operation nearly the entire length of the bone was found involved.

This experience was mortifying, even though five other physicians had seen the patient and agreed as to the supposed phlebitis. In future the absence of the cord-like vein in phlebitis will help discriminate the two conditions, and in such cases osteomyelitis should be seriously considered.

There is no difficulty in these days, but fifty years ago it was very hard at times to differentiate between typhoid and remittant fevers. While the typical courses of each are distinct, many atypical cases occurred which confused me. The microscope and a drop of blood nowadays solve the question.

Tubercular meningitis is still difficult for me to recognize in some cases from the above in the

early stages. The discovery of the plasmodium or the tubercle bacillus are conclusive, but this is not always possible. Headache is more severe in the meningitis, and there is usually a scaphoid abdomen, with constipation. The last two conditions, however, are not infrequent in typhoid fever, and meningeal symptoms may also be present.

Baginsky's sign and convulsions point to tuberculosis, but the diagnosis without discovery of the specific organism may be impossible.

Hysteria covers a group of symptoms which may be very misleading, and as time elapses I feel it as much of an entity as when Austin Flint described it as a type of mental aberration. Many conditions, however, formerly ascribed to it are now known to be secondary to organic conditions. I oftentimes find it difficult to discriminate, but when I find a woman suffering from nervous paroxysms I make an exhaustive examination of her anatomy before making a diagnosis of hysteria. It is surprising to find the disturbances consequent upon, for example, a urethral earuncle, a lacerated uterine cervix or an inflamed hemorrhoid.

Insomnia is another difficult condition one meets. If examination reveals arterio-sclerosis, gastro-enteric catarrh, reflex disturbances of the heart, gouty lesions, chronic alcoholism, worry over business or other causes, the underlying cause is clear. In cases of a clear history and negative examination there is cause for perplexity. It may be functional only or auto-intoxication or neurasthenic, but the underlying causes in these are difficult to discover.

The essayist then emphasized the necessity in all nervous disorders of careful examination before ruling out organic lesions. He detailed the difficulty oftentimes of distinguishing chronic asthenic gout from arthritis deformans, giving his personal observations as to their distinguishing features. He then detailed an instance of apparent acute rheumatism following tonsillitis, which was resistant to the salicylates, and, though recovering, may have been, he thought, a case of streptococcus poisoning.

He then considered the difficulties of recognizing early stages of tuberculosis and emphasized the great importance of carefully considering every symptom separately and the clinical picture as a whole, illustrating with cases and symptoms from his personal observation. He condemned the use of Calmette ophthalmic test from his own unpleasant experience.

The various forms of anemia, especially those secondary to cancer, are sometimes difficult to

distinguish from pernicious anemia, according to the essayist, and he illustrated the statement and brought out helpful diagnostic points. Addison's disease without pigmentation is also hard to recognize, as illustrated by a case described. Scurvy and purpura hemorrhagica were then considered and the difficulties of differential diagnosis illustrated by a case under the essayist's care.

The paper closed with a careful, practical and very lucid description of the differential factors in the ordinary eruptive fevers common to this community, which was especially valuable and interesting to the hearers.

The Monroe County Medical Society met June 18. The meeting was called to order by J. W. Norris, vice-president. "The Modification of Milk for Infant Feeding" was the subject of a very interesting address by John T. Thornton, of Wheeling, W. Va. Discussed by A. H. Korner, J. W. Norris and others.

EIGHTH DISTRICT

At a recent meeting of the Muskingum County Medical Society John T. Davis read a paper on "Diseases of the Cervix." After reviewing briefly the physiologico-anatomical relations of the different divisions of the female generative system, Dr. Davis spoke of the theories advanced to explain the migration of the spermatozoon to its meeting place with the ovum. The Nabothian glands secrete a fluid resembling seminal fluid, which makes a vehicle that aids in carrying off the spermatozoon to its destination. Consequently disease or destruction of these glands interferes with the functions of reproduction. Lesions of the body and cervix are never completely independent, but there is a more decided location in one part or the other, and, as the cervix is most frequently exposed to traumatism, cervical endometritis predominates.

One of the commoner diseases of the cervix is erosion, which is seen with acute vaginitis or as a result of contact with foreign bodies, such as a badly fitting pessary. This may be followed by ulceration, where part or even all of the circumference of the os seems to be depressed, and some gynecologists regard this condition as an actual loss of substance, while others claim, on the contrary, that there is no loss, but a formation of new tissue.

Laceration is the most common affection of the cervix and is always due to an accident during parturition. The operation for repair of the cervix taken up with enthusiasm by Sims has met

with less approval by German surgeons. Cervical lacerations are not matters of slight importance, yet frequently large rents and gaping halves of the cervix cause no apparent disturbance, while slight tears and insignificant looking erosions sometimes produce intense disturbance. It is when these lacerations give rise to catarrhal inflammation that treatment becomes necessary. There is exfoliation of the cervical mucous membrane and ulceration; the glands of Naboth frequently become closed, either by the inflammation or treatment by caustics, and become distended with secretion, forming cyst-like bodies deep in the membrane. With the cystic degeneration of the cervix we find abundant leucorrhea and menorrhagia. If this condition is of long standing, we may have sclerosis. With any of the conditions mentioned we find the usual symptoms of disordered nervous system, backache, sacral pains and pains low down on either side of bladder; the patient will tell you that she will lose her mind if she does not soon get relief. The great majority of these troubles will yield to the non-operative treatment, but if the tear is not repaired there is a tendency to recurrence.

There are few remedies that act especially upon the sexual organs, and hence we must resort to those measures which will correct defects in the general health and calm the excited nervous system. Local treatment should attempt to accomplish two objects—the removal of the disease and the restoration of the organ to its normal condition. In these the rules laid down by surgeons for the treatment of inflammation generally should be followed. Place the organ at rest, quiet irritation by sedatives, relieve congestion by depletives and astringents, and build up the system by alteratives. If the uterus is displaced, it should be replaced and sustained in its normal position. As to depletion, it is a remedy of great value. Dr. Davis practiced the method of depletion by punctures and scarifications twenty-five years ago, but has abandoned it for the more rational method of glycerinated tampons. It is surprising the large amount of fluid that is extracted by the use of several small balls of cotton saturated with glycerin and placed around the neck of the uterus every three to six days. The destructive cauterants are no longer used, but preference is given to sulphate of copper as a topical application. The crystals are applied directly to the diseased area, or application is made of a saturated solution. The cervix should be treated until the inflammatory conditions are removed, and then, if the patient is past

the childbearing period, the laceration should be repaired; otherwise do not repair the torn cervix, else the patient will be subjected to an operation after each childbirth.

At the July meeting of the Muskingum County Medical Society Simon Kelly read a very interesting paper on "Antipyretics." Dr. Kelly said in part: It would be manifestly impossible, in a short paper, to name or give the chemistry of many of the drugs classified as "antipyretics." The Coaltar class seems to give us a limitless number, with non-understandable chemical formula and names that would do honor to a heathen princess. The three A's—antipyretic, antiseptic and analgesic—possess wonderful fascination and slide from the tongue of the detail man with euphonic ease.

The majority of human ills bring with their invasion of the body a symptom which we designate as fever. As physicians, we see this, and also see its variability in different diseases, but we do not stop to consider the reason. In our zeal and hurry the clinical thermometer determines our treatment. If above the normal, give antipyretics. Why? Because drug importers and chemical companies are teaching the physicians of this land through circulars and fake medical journals, just as the patent medicine firms do the laity with spurious medical articles.

Except where there is improvement due to local antiseptic action, the mere giving of these drugs to reduce fever usually retards recovery. It has not been established by chemical evidence to the satisfaction of those in a position to judge just how these drugs affect fever conditions, whether they lower temperature by inhibition or by elimination; but we will all agree that their action is not constant or uniform. Granting their antipyretic action, the essayist maintains that by such action they not only retard the natural evolution of disease, but produce harmful effects. The natural tendency of the human body is to cast off disease and effect its own recovery, and rise of temperature is a natural concomitant. It does not take an acute observer to see developing from the beginning of the fever a paleness, which increases as the disease progresses. The flushed face at first gradually gives way to the pale, blanched appearance, more pronounced in cases where there is either a congestion or inflammatory product is being deposited, like in pneumonia, or where there is a walled up pus or serous effusions. This fever has a duty to perform, which has to do with the change produced in the relative number of white and red blood corpuscles, especially in the number and activity

of the white cells. The use of drugs, then, which interfere with this natural change is a matter of more than passing significance. By inhibiting the increase and activity of the leucocytes, which are to assist in destroying the cause of disease and in clearing up the field after the battle, by giving antipyretics, you are at the same time interfering with the functional activity of the red cells. These oxygen-carrying bodies are almost paralyzed and disintegrated by the Coaltar drugs. You have all noticed the condition produced by the ingestion of Coaltar headache powder. Death has followed the taking of these drugs by the laity for headaches, as the records show; it has also followed their administration by physicians, which the records do not show.

The anemia following fevers treated with antipyretics is more persistent and recovery less perfect than in those treated without such drugs. The anemia following antipyretics is due to their destructive action on the red corpuscles; the anemia following fevers treated without antipyretics is due to an increase of the white corpuscles, leaving the red cells intact and performing their allotted function.

The medical world has been awakened by the recent work of Wright, of London. The object of the plan is to stimulate the scavenger force in the body to greater activity. His theory is to prepare a sauce to be served with each family of germs that visits us, so as to make them more palatable to our friends the leucocytes. Is there no harm produced in the vain attempt to lower fever by antipyretics, which lessens this appetite?

C. V. Hamma reported a death from puerperal tetanus, following an abortion. The onset was very sudden, with high fever and tetanic contraction of the muscles of the neck and face. Death occurred on the third day following the initial symptoms. Within a half hour after death this patient's temperature registered 109° F.

NINTH DISTRICT

The Gallia County Medical Society held a regular meeting June 3. Wm. Miller presided. The minutes of the preceding meeting were read and approved. The secretary read his annual report, which, by motion, was accepted and recorded. E. B. Morrison, as delegate to the recent State Association meeting in Columbus, made report. The matter of C. A. L. Reed's candidacy for the United States Senate was further discussed by all present, but no definite action taken by the society. The program followed.

Ella Lupton began with a paper upon "Cardiac Asthma," reviewing the causes and giving the

practical management or treatment of the condition.

S. Williams presented an essay upon "Dropsy Due to Heart Disease in the Aged." He reported very favorably upon and recommended the use of apocynum in failing strength of the heart.

Mary L. Austin reviewed the subject of "Functional Compared with Organic Symptoms in Cardiac Disorder." The paper was devoted especially to the problem of an adequate conception as to the diagnosis of a functional disease or disorder.

The essays were freely and generously discussed by all present.

Wm. Miller reported a case for discussion as to diagnosis.

The Gallia County Medical Society met in the City Hall, Gallipolis, Wednesday, July 1, with the largest attendance recorded in many months. The program for the day was as follows: "The Practical Treatment of Hemorrhoids," Wells Teachnor, president Columbus Academy of Medicine; "The Physiologic Cardiac Mechanism," S. P. Fetter, Gallipolis; "Some Observations Upon Stokes-Adams Syndrome and Heart Block, with Brief Report of Cases," Jehu Eakin, Gallipolis.

In accordance with the regular order of business, some other matters preceded the program. The secretary read a letter from C. O. Probst relative to the legislation as to licensing all maternity boarding houses and lying-in hospitals in the state. There being no such maternity boarding houses or lying-in hospitals in the county, the society passed over the matter simply with the reading of the communication.

John H. Winn, of Rio Grande, was duly elected to membership in the society.

Wells Teachnor, who was the guest of the society, followed with a thoroughly interesting discourse, clearly illustrated, taking up at length and in pleasing detail the practical treatment of hemorrhoids. His method of operating commended itself immediately to his hearers, is one peculiarly his own and is of superior merit. A vote of thanks was extended the doctor for his excellent essay.

Upon suggestion, the other papers upon the program were held over until another meeting, and the remaining time was placed at the disposal of John E. Sylvester, the Councilor of the Ninth District, who made an address reviewing in some detail the paper by the essayist, but more especially his remarks were directed to the consideration of local anesthesia, which he enthusiastically advocated in many major operations.

C. G. Parker presented a case of a young col-

ored boy showing a traumatic depression of the skull over the right ear, resulting from a horse kick, which at the time caused the exudation of several drams of brain substance. The boy, mentally and physically, is in splendid condition.

The Pike County Medical Society met Monday, July 6. A paper on "Tuberculosis" was read by S. S. Halderman, of Portsmouth. The paper was very freely discussed.

TENTH DISTRICT

The Ross, Fayette, Clinton and Highland County Medical Societies held a joint session in the G. A. R. Hall, Greenfield, Ohio, Wednesday, July 1. The program was as follows:

10:30 a. m.—"Movable Kidney, with Report of Three Cases," Robert Conard, Blanchester; "Prognosis," R. S. Dunlap, Greenfield; "The Relation of Albuminuria of Pregnancy to Eclampsia," C. C. Hatfield, Kingston.

Afternoon.—"Chloroform and the Obstetric Forceps," G. W. Blakely, Washington C. H.; "Skin Cancer," demonstrated from fifty colored lantern slides, M. L. Heidingsfeld, Cincinnati.

NEWS NOTES

L. H. Mann was recently elected mayor of Linden.

John T. Davis and wife are spending their vacation at Lake Chautauqua.

J. Park West, Bellaire, was elected treasurer of the American Pediatric Society.

G. C. McCraight was elected to membership in the Muskingum County Medical Society at the July meeting.

Stanley L. Allen has returned to Zanesville, after a six weeks' course in the New York Post-Graduate School.

Samuel B. Lightner, Jefferson Medical College, 1863, died at his home in Sabina June 24, aged sixty-eight.

P. A. Jacobs, of Cleveland, is in London studying serum diagnosis and vaccine therapy in the laboratory of Sir A. E. Wright.

E. J. Emerick, Superintendent of the State Institution for Feeble-minded, attended the convention of state institutions for feeble-minded at Rome, N. Y.

Professor Charles E. Albright, of Columbus, was re-elected by the State Board as an examiner as to the educational qualifications of applicants for certificates.

James Park West, Medical College of Ohio, 1882, a well known specialist in diseases of children, died at his home in Bellaire from facial erysipelas, aged forty-nine.

The South Side Physicians' Association, Columbus, recently organized and elected the following officers: President, M. T. Dixon; vice-president, Herman Hoppe; secretary, D. R. Williams; treasurer, H. L. Harris.

J. M. Thomas, chief physician at the penitentiary and for the past eight years a member of the staff, has resigned. A. G. Helmick, Columbus, will succeed to the position August 1. C. W. Collison, Columbus, was appointed night physician.

The Ohio branch of the National Medical Association, composed of colored physicians, dentists and pharmacists, met May 21 and 22 at Dayton, when the following officers were elected: President, W. W. Woodlin, Columbus; vice-president, H. R. Hawkins, Xenia; secretary, W. C. Gordon, Springfield; treasurer, R. E. Retferd, Springfield.

The Committee on Public Policy and Legislation, at a meeting held in Columbus Wednesday, July 8, passed the following resolution unanimously:

WHEREAS, The multiplication of various fads and cults claiming to introduce new methods of the practice of healing, but which are based on ignorance of true medical principles, or upon incompetency or actual deception, is antagonistic to the public welfare, opposed to the progress of the science of medicine, and threatening the lowering of the standards of the medical profession.

Therefore, be it Resolved, That it be the sense of the State Committee on Public Policy and Legislation, that all legislation looking toward the granting of license to practice the healing art

in any of its branches, excepting as provided under the present statutes, should be opposed.

(Signed) J. W. CLEMMER,
D. R. SILVER,
J. H. J. UPHAM.

AMBROSE BARRED FROM PRACTICE.

The State Medical Board late Tuesday evening cancelled the certificate of J. A. Ambrose, of Dayton, for the reason that he has been convicted of felony. Dr. Ambrose was recently pardoned from the state prison, where he was serving eighteen months for criminal practice, by Governor Harris. Dr. Ambrose was present with his attorney, E. E. Corwin, and opposed the proposed action, but in vain. Dr. Ambrose admitted that he performed the operation which was the basis of his prosecution, but held that it was necessary for him to do so. It is likely that Dr. Ambrose will appeal from the decision of the board to the Governor and the Attorney General.

The Cincinnati Chapter of the Alumni of the Medical College of Ohio held its regular annual outing at Avoca Park on the Little Miami on Thursday, July 16, 1908. A game of baseball was played between the "Pills" and the "Scalpels," with victory resting with the pills. Music, boating and dancing were prominent features of the occasion. Some of the old fellows frequently were missing, and were located in an old mill at a game of poker. Twice a posse was organized and a raid made on the game, with disastrous results to both sides. An elegant chicken dinner was served, no speeches were allowed, but the ruling passion of the hour was

"Sport that wrinkled care derides
Laughter holding both his sides."

The State Medical Board announced the following list of successful applicants for certificates as medical practitioners, who were examined last month:

William S. Yeager, Cincinnati, O.; William T. Stewart, Cincinnati, O.; Robert D. Mussey, Cincinnati, O.; Arthur Silver, Sidney, O.; Arlington Ailes, Cincinnati, O.; Frank C. Heffner, Cincinnati, O.; Charles E. Howard, Cincinnati, O.; John Fred De Courcy, Cincinnati, O.; Elber R. Brubaker, Springfield, O.; Edward D. Allgaier, Cincinnati, O.; Charles A. Donnelly, Fort Thomas, Ky.; Frazer F. Monroe, Cincinnati, O.; Geo. H. Schomaker, Cincinnati, O.; Joseph H. Shaw, Cincinnati, O.; Emil Strasser, Cincinnati, O.; Adam E. Schlauser, Cincinnati, O.; Nelson P. Yeardeley, Cincinnati, O.; Ott Casey, Cincinnati, O.; Erra D. Stump, Charleston, W. Va.; Wil-

liam H. Hull, Cincinnati, O.; Rae Roxie Brenner, Cincinnati, O.; Malcolm Bronson, Hamilton, O.; David R. Bussidicker, Dayton, O.; William T. Cade, Jr., National Military Home, O.; Harry W. Lautenschlager, National Military Home, O.; Stanley B. Andrews, Hamilton, O.; Glenn K. Dennis, Jamestown, O.; David F. Gerber, Collinsville, O.; Joseph M. Ranz, Cincinnati, O.; Eugene O. Porter, Cincinnati, O.; Arthur J. Light, Cincinnati, O.; Floyd M. Freeman, Toledo, O.; William R. Abbott, Cincinnati, O.; George W. Martin, Chillicothe, O.; Charles C. McCaffrey, Huntington, W. Va.; James A. Caldwell, Toledo, O.; August H. Schade, Toledo, O.; Julius M. Rogoff, Cleveland, O.; Jeanette C. Miller, Massillon, O.; Everette P. Coppedge, Cleveland, O.; Benjamin C. Deeley, Sandusky, O.; Fred J. Melzer, Cleveland, O.; Joseph A. Neuberger, Cleveland, O.; Fred G. King, Canton, O.; Carl L. McDonald, Cleveland, O.; Edmund C. Konrad, Cleveland, O.; William E. Merrick, Cleveland, O.; Bryson B. Colvin, Cleveland, O.; Reed W. Anderson, Cleveland, O.; William B. Rasing, Cleveland, O.; Chauncey C. Stewart, Cleveland, O.; William G. Zanting, Cleveland, O.; Oliver P. Walker, Cleveland, O.; Charles H. Elber, Cincinnati, O.; Robert R. Hilborn, Aurora, O.; John A. Heeley, Lorain, O.; John C. Stratton, Atwater, O.; Clement I. Harpster, Cleveland, O.; Frederick W. Knippel, Lakewood, O.; Ralph A. Scherz, Sandusky, O.; George B. Parisen, Cleveland, O.; Homer H. Patton, Montpelier, O.; Rudolph J. Ochsner, Cleveland, O.; Orvall Smiley, Cleveland, O.; Courtland L. Booth, Cleveland, O.; Homer G. Scranton, Cleveland, O.; William C. Martin, Cleveland, O.; Henry H. Skinner, Cleveland, O.; Claude E. Price, Cleveland, O.; Homer P. Prowitt, Cleveland, O.; Arthur M. Tweedie, Cleveland, O.; Siegfried Baumoel, Cleveland, O.; Jacob G. Brody, Cleveland, O.; Robert H. Bishop, Jr., Cleveland, O.; Chauncey W. Wyckoff, Cleveland, O.; Samuel C. Hotchkiss, Cleveland, O.; John D. Knox, Cleveland, O.; Perley H. Kilbourne, Cleveland, O.; Brown S. McClintic, Cleveland, O.; Oliver B. Bigelow, Cleveland, O.; Cecil O. Witter, Cleveland, O.; Noah Zehr, Cleveland, O.; Archibald N. Dawson, Cleveland, O.; Robert S. Campbell, Cleveland, O.; Ernest R. Brooks, Cleveland, O.; Harley J. Powell, Rawson, O.; Lawrence A. Pomeroy, Cleveland, O.; Zeddock F. Atwell, Amsterdam, O.; William B. Bryant, Dayton, O.; Albert G. Schlink, New Regal, O.; Zoena May Sutton, Towanda, N. Y.; Harold D. Fitch, Cincinnati, O.; Theodore A. Dillman, Fostoria, O.; Mabel Sara Richards, Columbus, O.; Bessie

Lucretia Sweet, Bellville, O.; Evert John March, Nelsonville, O.; Daniel B. Spitler, Van Buren, O.; Grover C. Goudy, Beach City, O.; Charles W. Wendelken, Cleveland, O.; Edward C. Buck, Columbus, O.; Nelson C. Dysart, Reynoldsburg, O.; Robinson L. Bidwell, London, O.; Adam G. Elder, Columbus, O.; Clarence G. McPherson, Xenia, O.; Charles H. Hamilton, Columbus, O.; Clark G. Axline, Lancaster, O.; John Wesley Tippi, Trimble, O.; John R. Sprague, Athens, O.; Edgar M. Freeze, Columbus, O.; Robert B. Drury, Columbus, O.; George L. Saunders, Lancaster, O.; James W. House, Springfield, O.; Clarence M. Valentine, Columbus, O.; Arthur W. Detrick, Enon, O.; Harry M. Jenkins, Washington C. H., O.; Elmer C. Jackson, Columbus, O.; Lorenzo D. Nelson, Nelsonville, O.; Will A. Quimby, Blaine, O.; Edwin J. Kennedy, Columbus, O.; William C. Coultrap, Columbus, O.; James M. Lantz, Columbus, O.; Joseph W. Shaw, Columbus, O.; John C. Knox, Columbus, O.; Floyd Kramer, Gahanna, O.; Joseph W. Chetwynd, Massillon, O.; Joseph W. Russell, Cleveland, O.; Glenn O. Dayton, Waverly, O.; Harry E. Diers, Dayton, O.; Rupert K. Welliver, Dayton, O.; Paul B. H. Smith, Brookville, Pa.; William H. Davis, Maplewood, N. J.; Hugh J. Means, Columbus, O.; Albert E. Williams, Canton, O.; James K. Pollock, Lisbon, O.; Frank B. McNierney, Titusville, Pa.; Andre Crotti, Columbus, O.; Benjamin Szentpaly, Lorain, O.; Hugh S. Maxwell, Richmond, O.; Martin S. Collins, Tremont City, O.; Joseph H. Kenealy, Canton, O.; Emil H. Stone, Cleveland, O.; Louis H. Newburgh, Cincinnati, O.; Mary Leah Cook, Waynesville, O.; Harry V. Christopher, London, O.; Harry G. Sloane, Cleveland, O.; Henry C. Russ, Cleveland, O.; Arnold Minnig, Cleveland, O.; Stephen W. Goldcamp, Youngstown, O.; Frederick C. Smith, Blank Band, O.; Carrie E. Moores, Cincinnati, O.; Lorena Kagay, Richwood, O.

MARRIAGES

Halbert B. Blakey to Miss Edna May Miller both of Columbus, June 23.

Raymond J. Seymour, Columbus, to Miss Zula Merriman, of Centerburg, June 24.

Arthur M. Cheetham to Miss Agnes May Robinson, both of Cleveland, June 18.

Otto G. Bosenkranz, Marietta, to Miss Inez Haymes, of Philadelphia, Pa., June 17.

H. R. Berry, superintendent of the Custodial Farm, at Orient, and Miss Caroline E. Trucks, of Columbus, were married June 23.

DEATHS

Cornelius Honaker, Medical College of Ohio, 1884, died at his home at Pond Run June 18, from dropsy, aged seventy-six.

W. H. Sherman, Bellevue Medical College, 1867, a veteran of the Civil War, died at the Toledo Hospital, June 14, from apoplexy, aged sixty-seven.

Walter P. Hanning, Ohio Medical University, 1903, of Nelsonville, died of acute pancreatitis at St. Anthony's Hospital, Columbus, July 8, aged twenty-nine.

Allen T. Quinn, Medical College of Ohio, 1862 for years a practitioner of Wilmington, died at his home May 10, after a lingering illness, aged sixty-nine.

Charles P. Wagner, Northwestern Ohio Medical College, Toledo, 1888, formerly editor of the Toledo Medical and Surgical Recorder, who removed to Los Angeles in 1905 and there became managing editor of the California Medical and Surgical Reporter, died in the Pacific Hospital, Los Angeles, June 6, after a short illness, aged fifty-five.

AN EARLY SIGN OF ESOPHAGEAL STRICTURE.

Revidtzer (*Semaine Medicale*, Feb. 19, 1908) says that on swallowing a mouthful of liquid two sounds are normally to be heard by auscultation; the first is due to the contraction of the muscles in swallowing; the second, occurring about seven seconds later, is caused by the lower end of the esophagus propelling the liquid into the stomach. In stricture some of the fluid is not passed on at once; if then a second attempt at swallowing is made, without actually swallowing anything, liquid is again heard to pass into the stomach. This may be again repeated until all the fluid retained in the esophagus has passed through. This sign may precede all other evidences of stricture. —Via Arch. of Diag.

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ORIGINAL ARTICLES

CERTIFIED MILK.

J. J. THOMAS, M. D.,
Cleveland.

[Read before the Ohio State Medical Association, Columbus, 1908.]

It is the unanimous opinion of pediatricists the world over that the maternal breast is the ideal source of nourishment for the human infant. If this fails, as for numerous reasons it may, then the milk of the wet nurse is the best substitute. While many authorities contend that the mother is nearly always capable of nursing her offspring under proper management and encouragement, it is nevertheless an incontestable fact that, in this country at least, an ever increasing number of mothers are either totally unable to produce a supply or are able to do so for a very short time.

In my experience, the mother who refuses utterly or is decidedly opposed to exercising this function is a rare exception indeed. To practically every mother it is a most bitter experience to find that her breasts either will not function or will do so for a short time only, in spite of every resource for promoting the flow of milk. The etiology for this condition appears to be, for the present at least, an insoluble mystery. At the same time it cannot be denied that a great many mothers, for the most part among the poorer classes to be sure, but not an inconsiderable number among the well to do, who fail to nurse their offspring could do so if intelligent efforts were made to instruct them in the proper methods for promoting the flow.

It is to be regretted that physicians themselves are not entirely blameless in the matter, owing usually to a too ready acquiescence in the opinion of the mother, nurse or relatives that the mother cannot or should not nurse her child. That the position of the laity in this regard is largely due to ignorance is proved by the notable achievements of such institutions as the Goutte de Lait in Paris, the Säuglingsfürsorge in Ger-

many, and the Babies' Dispensary and Hospital of Cleveland, one of their chief aims being to instill into the minds of mothers the great importance of breast milk for the health and well being of their babies.

These contentions being granted, the fact nevertheless remains that a vast number of infants are and will be, for various reasons, artificially fed. From long experience it has come about that the milk of the cow is usually accepted as being best adopted for the purpose, whether in its natural state or forming the basis of the innumerable so-called artificial infant foods. The milks of other animals, such as the goat, ass and mare, while perhaps from their composition, more adapted for the infant's digestive tract, are used so little that they may be neglected in comparison. In fact, the poor goat, while furnishing a better and much cleaner milk than the cow, does not escape calumny, as her milk is now considered responsible for Malta fever.

It has been shown conclusively that, from a biologic viewpoint, the milk of one animal is adapted to the young of that particular type and to no other, and some authorities even contend that the milk of one animal contains elements which act as poisons to the young of other species. Hence cow's milk, however pure, cannot be considered a perfect food for the human infant, prepare it as we may.

Practically, however, it is a condition we must meet and not a theory. As a matter of fact, it must be admitted that the vast majority of digestive disturbances in artificially fed children result not from the biologic differences, but from faulty methods of production and handling and to a less extent from unintelligent modification to suit the individual infant.

Czerny's concise classification of the nutritional disturbances of infants is sufficient proof for this statement. He divides these disturbances into those due to the food itself, those due to infection from the food and those due to congenital defects in the constitution and structure of the body. Under the first head he includes those dis-

turbances due to the excess of fat in the food and those due to farinaceous elements added to the food. He denies that any disturbances are due to the proteids and brings forward very strong proof to support this contention.

Finklestein, working along the same lines, has recently gathered together a group of cases in which the disturbances are due to the fat or sugar or both, for which he proposes the designation alimentary intoxication.

On the other hand, all authorities agree in the opinion that the chief etiological factor in the production of gastro-intestinal disturbances in infants is impure cow's milk. The evidence in support of this view is so conclusive that a mere statement of the fact appears to be sufficient. At any rate, to those who have had considerable experience in treating sick babies at city dispensaries in summer, no further evidence is needed than their clinical experience.

And what is the remedy for this inexcusable, indeed, one is tempted to say criminal slaughter of the innocents? Purely and simply prophylactic, by the use of pure, clean milk, instead of impure, dirty milk. Prescribing the remedy, however, is but scratching the surface. To obtain it is usually a difficult, often an impossible task. Market milk, as sold in practically every community in this country, is the filthiest food offered for human consumption.

That this is entirely due to the unsanitary conditions under which milk is produced and handled, is conclusively proved by the innumerable inspections carried on in the last few years by government and municipal authorities. No less than 500 epidemics of typhoid fever, diphtheria and scarlet fever have been traced to infected milk during the last half century. The milk contests recently held in various cities under the auspices of the United State government are powerful factors in opening the eyes of consumers to the inexcusable neglect of ordinary sanitation by dairymen and in pointing out to the latter their faults.

The health boards of our larger cities have only recently awakened to these facts and are undertaking measures to greatly improve the product. The city of Cleveland, as an example, has, within the last two years, adopted a stringent code requiring cleanly conditions at the dairies, the tuberculin testing of cows and providing inspectors for the work. A bacteriological standard of 500,000 per cc. has been established, and a temperature standard of 50 degrees F. Other cities are working along the same lines, and these are all steps in the right direction.

Market milk should be produced under as

cleanly conditions as possible, consistent with a fair profit to the producer. And this is one of the many problems the officials have to meet. The consumer is not educated up to the point of paying a fair price for a pure article nor to appreciate a pure article when he gets it.

Only recently in one of our large cities the sales of a milk station selling a very pure milk in the slums at six cents per quart, fell off nearly fifty quarts on the first day of a reduction by the corner groceries to five cents per quart for their dirty milk. And this occurs after years of educational efforts among these same people.

The efforts of health authorities, however, must be for a very long time, if not entirely directed to the control of the general milk supply and to its improvement in every possible way. But the problem of furnishing a safe milk for infants and young children is a totally different one, and would not appear to come within the province of the municipal authorities, at least, no efforts have ever been made toward this end. On the contrary, the recently published Bulletin 41 of the hygienic laboratory of the Public Health and Marine Service of the United States gives abundant evidence for the conviction that even the general milk supply of the country has received scant attention.

As Holt points out, children over two and one-half years of age are no longer susceptible to the impurities in milk which act as poisons to children below that age. Even if the highest standard thus far established for market milk were rigidly enforced, and it will be many years before this standard is generally adopted, it by no means follows that this would ensure a milk fit for infant consumption. On the contrary, in all probability, the infant mortality would be but slightly, if at all, affected.

It is to the unbounded credit of the medical profession that one of their number, Dr. H. L. Coit, of Newark, N. J., solved the problem of ensuring a safe milk supply for young children over eighteen years ago. He perceived that the only sure and safe control lay in the hands of the medical profession and to this end, in 1893, proposed a plan to the medical society of Essex county, N. J., which was forthwith adopted.

This plan provided for the selection of a number of the members of the society, to be known as the milk commission, the first in the world. A rigid contract was entered into between this commission and a dairyman, giving absolute control of every detail of the production, handling, transportation and delivery of the product of the dairy to the commission. Every detail was covered in the contract together with frequent examinations

by a veterinary, a chemist, and a bacteriologist, besides examinations of the dairy hands by a physician. This contract has proved so satisfactory that it has served as a model for similar contracts drawn up by the twenty-seven milk commissions formed since that time.

For the product of the dairy Dr. Coit coined the term certified milk, and at his suggestion the producer obtained a copyright from the United States government, stipulating, however, that the privilege should be granted to similar future commissions to use the term.

The details of this contract need not be stated here, suffice it to say that their strict observance insures a product containing less than 10,000 bacteria to the cc. as it reaches the consumer and as pure as can possibly be produced with our present knowledge.

There are now twenty-eight medical milk commissions in this country, united in a national body known as the American Association of Medical Milk Commissions, formed at Atlantic City last June, with Dr. Coit as president. This body has arranged to hold an annual meeting at the time and place of meeting of the American Medical Association.

Now, as a dairyman is rarely, if ever, in the business for his health and cannot afford the luxury of being a philanthropist, the question of disposal of his product is a highly important one, particularly as the selling price must be at least double that of market milk. It is an interesting and practical fact that the physician, being responsible for the production of certified milk, is at the same time, responsible for and creates the demand.

It has been the experience of every commission that the demand for certified milk has always equalled and frequently exceeded the supply, at least within a very short period after it has been put on the market. This attests very forcibly the educational power of the physician, in creating a market for a new product, and conclusively proves the wisdom of professional control of a safe milk for infants.

If physicians throughout the country were fully alive to their opportunities and even their duties in this regard, there is no doubt that every community of any considerable size would be supplied with certified milk under the plan as outlined. In fact, at the meeting of the Association last June, attended by physicians, sanitarians and hygienists who are best informed on the subject of pure milk, it was agreed that a crusade for pure milk in any section could best be advanced by the establishment of a medical milk commission appointed by the county medical society.

While it is a very great privilege to be actively associated as a member of a milk commission in the crusade for pure milk, the task of putting certified milk on the market is no sinecure. In the first place the county society must be requested to appoint a commission, upon the personnel of which a great deal depends. Then follow weeks of discussion and arrangement of endless details, conferences with the dairymen, circulation of literature, trips to other certified farms, the expenses for which are usually met by private contributions. No little responsibility rests with the commission, since the dairyman must invest several thousands of dollars before he puts the product on the market and he does this solely on the assurance of the commission that there will be a sufficient demand.

After the business is established, the commission cannot cease from its labors, as eternal vigilance is the price of certified milk as of liberty. But the rewards are entirely commensurate with the labors.

In certified milk we have a food, upon whose purity the physician and consumer alike can rely, as it is guaranteed by a body of men who have absolute control of every detail of its production from the cow to the home, and who have absolutely no financial interest in the success of the undertaking. No member of any commission receives recompense for his work.

When, however, the control of a milk supply intended for infants is not in the hands of the medical profession, the physician who recommends the product must accept its purity largely on faith, since the dairy is not subject to inspection and the details are entirely in the hands of the producer, whose interest is almost entirely commercial. If anything goes wrong with the milk, the poor consumer gets the blame, because he did not, presumably, take proper care of it after it was delivered. Up to this point every possible care was taken, according to the producer, and with this assurance the physician must be content.

A certified farm in a community is a powerful educational force in the crusade for pure milk, not only in stimulating the interest of the physician and layman, but also in awakening neighboring dairymen to the possibilities and commercial advantages of sanitary dairy conditions.

While the term certified milk is recognized by national copyright and by long usage has become associated in the public mind with the product guaranteed by a medical milk commission, it is unfortunate that the copyright laws, in this instance, at least, offers light protection. It has been the experience of nearly every commission that unprincipled parties have sought to delude the

public by placing upon the market a so-called certified milk which was either much below the commission's standard, or even ordinary market milk, hoping to increase their sales through the demand created by the commission.

Owing to the difficulties in the way of prosecution in the federal courts, these nefarious schemes must be circumvented by state laws. In New York and Kentucky, laws have been passed, recognizing the status of the term certified milk and imposing penalties for its sophistication.

It is a matter of regret that the present legislature of the State of Ohio gave the matter scant attention when a bill was introduced during the session, providing for legislation similar to that of New York. The bill is still in committee, with no prospect of passing. It seems impossible to conceive of human creatures sunk to such a depth of depravity as to trifle with the lives of innocent, helpless infants, for a few paltry dollars. Yet such conditions prevail in the two largest cities of the state and there is no help.

Owing to a misconception as to the true status of certified milk, the board of health of one of the large cities of this state has been for some time certifying to the milk of a dairy, which represents its product to be certified milk. As there is no milk commission in this particular city, the term, of course, should not be used, even though the requirements of this board were sufficiently rigid to ensure a milk reaching the standards established by the commissions.

The bacteriologic standard alone, however, is lower by 40,000 than that of the milk commissions, and the certificate of the board, as published by the distributor, would not confirm the opinion that the other requirements were sufficiently rigid. In all fairness, some other term should be selected to designate this product.

In conclusion, it may be well to emphasize the special points to which I have endeavored to call attention in a necessarily brief survey of so large and important a subject, viz., that, while in a small proportion of artificially fed children, digestive disturbances are caused by certain nutritive elements in excess in the food itself, still the vast majority of intestinal disturbances are diarrheal in character caused by bacterial contamination resulting from unsanitary handling of the milk; further, that, in the present state of our knowledge of milk production, in the hands of the medical profession should be the sole control of milk intended for infant consumption, as it appears that in this way only can a sufficiently safe milk be assured.

DISCUSSION.

Professor Erf, Professor of Dairying, Ohio State University: I was an interested listener at one of your meetings held here yesterday afternoon, when Dr. Thomas presented his most excellent address on the subject of certified milk. The discussion that this paper has brought forth has been gratifying to me and indicates the fact that the medical men of the State of Ohio are beginning to realize that one of the most important problems before them is the regulation of the sanitary condition with reference to milk production for human consumption. No one realizes this important point more than your chairman, whom the dairymen recognize as authority on certified milk, and who has done much to promote its production. The power of regulating the sanitary condition of dairies lies in the hands of the physicians of the state.

We fully recognize the fact that certified milk is the ideal milk, but according to the regulation adopted by nearly all certified milk plants and which of necessity must be so that such milk shall not contain more than 10,000 germs per cubic centimeter, the expense is increased to such an extent as to make it prohibitive for the average person to buy. Milk that contains 50,000 germs per cubic centimeter, if produced from healthy cows in a clean place, is much less expensive and can be produced from eight to ten cents per quart and is equally as good for adults and for culinary purposes. We fully recognize the fact that certified milk becomes almost a necessity for infants and for convalescents, and in cases of this kind the majority of the people are willing to buy such milk and many of the cities and many of our country towns, easily accessible, should be provided with such milk. But if we could increase the sanitary conditions of our general milk supply we would, indeed, do much to increase the healthfulness of this delicate and necessary food product. Realizing this condition of affairs, the general assembly of the State of Ohio has passed an act at their last session, setting aside \$2500 for educating the dairymen as well as the consumer, in the principles of sanitation. This sum was appropriated to the Ohio State University, which shall spend the money at the suggestion of the department and executive committee of the Dairymen's Association.

The term "sanitation" to the average dairyman means an enormous expense involved in the production of milk, the means of which is not within his reach. A sanitary milk barn is usually considered a barn built on the order of a palace rather than simplicity. I can site you instances where farmers have spent from \$2000 to \$3000 in building sanitary milking stables which are absolutely filthy and unsanitary because they did not understand the principles involved in the construction of a sanitary barn with proper drainage, ventilation and light. I know of many barns without light and ventilation, that have cement floors in them without gutters and without drains. If these people had understood the principles of sanitation they could have built a floor provided with gutters and drains, which would have made it sanitary. Instead of boarding up the sides of the barn, some windows should have been placed

so that a little sunlight might enter the stable, and if they would have provided some simple way of ventilation, the stable, which would have cost but little more, would have been constructed on sanitary principles.

We must educate the producer how to milk to keep healthy cows; how to feed and how to care for these animals. He must know more about the handling of the milk from the time it leaves the cow until it reaches the consumer. The consumer must also be educated to handle this product intelligently until it is ready for consumption. I, therefore, in the behalf of the dairy department of the Ohio State University, wish to earnestly solicit your co-operation to develop the educational part of this work. This appropriation will be available July 1, and it is our aim to demonstrate at a meeting, which you may call in your city, town, or village, when convenient, in a practical way, the necessity of housing cows in a more sanitary way; how to feed; how to care for them, and the proper methods of handling the milk from the time it leaves the cow until it reaches the table. We wish to show the producer that it is to his own interest, as well as the public, to test his cows for tuberculosis. We hope, in a practical way, to demonstrate all these points, and trust that you will avail yourselves of the opportunities offered by the state.

WHEN TO OPERATE FOR APPENDICITIS.

EDMUND CONE BRUSH, A. M., M. D.,

Ex-President Ohio State Medical Association,
Chief Surgeon Ohio State National
Guard.

[Read before the Ohio State Medical Association, Columbus, 1908.]

For the past twenty years or more the appendix has been chased back and forth between the physician and the surgeon with all sorts of claims made by both as to whether it belonged to the one or to the other, when it became diseased.

The resulting deductions made by men with wide experience have brought the diseased appendix into the surgical fold and appendicitis is now generally recognized as something with which the surgeon should deal. Whilst surgeons with great and united persistency have been claiming the pathological appendix as their own, they have not been in accord as to when to dispose of it.

The paramount question has been, "Should the appendix be removed before, during or after an inflammatory attack?"

In the past decade, medical journals have published volumes of articles advocating different stages of the disease in which the operation should be performed, along with various methods of procedure. All of this has been of inestimable value to the profession at large and the knowledge gained, backed up by the results, has solved

many questions relating to the disease in question. The public has been influenced thereby and has a very different understanding now from that of ten years ago.

The title of this paper implies a question, "When to Operate for Appendicitis?" With some reservation, the answer might be given, "Whenever we get a case that is in any kind of physical condition for operative procedures." If the surgeon first sees a case when the inflammation is subsiding and the patient is doing nicely in every way, he is certainly justified in waiting for a time and getting the patient in the best possible condition for an operation, as well as allowing the patient to make any needed preparations or arrangements, not forgetting to be ready in case of any indication of a recurrence. This whole matter of when to operate or when not to operate has had its ups and downs among surgeons and they have been forced to learn through sad experiences (and perhaps some autopsies) that the symptomatology was not always a sure guide to the pathological conditions. Furthermore, they had to learn that often when pus was present and an abscess had formed, even with the patient in almost a moribund condition, it was good surgery to open the abdomen and let out the pus, put in drainage and then stop and wait. It might be embarrassing when asked the usual question by waiting friends, "Did you get the appendix?" to answer, "No," and then explain why. Many people think that the operation is not complete unless the surgeon can produce the appendix. Yet the skill shown was not in the operating, but in the stopping.

Much of the controversy in the past and now among both physicians and surgeons as to when to do an appendectomy has been and is caused by the fact stated, that the symptomatology is not always a guide to the pathology.

I wish to review briefly two cases to illustrate this fact. Both cases also accentuate the proposition of advocating operative procedures whenever it is definitely determined that the appendix is or has been diseased.

My colleague, Dr. Crossland, recently invited me to meet him in one of our home hospitals in consultation. The patient was a healthy looking sixteen year old boy who had worked in one of our iron manufactories until the day before his admission to the hospital. He told the doctor that he had had several spells of "belly ache," but never had been sick in bed or obliged to quit work. The doctor, upon examination, was satisfied that the "belly ache" was due to a diseased appendix and sent the boy to the hospital. The next morning the doctor operated. The boy

walked into the operating room and climbed up on the table. His pulse was ninety and temperature ninety-nine and one-fifth degrees. There was some tenderness over the appendix and some rigidity of the superimposed abdominal wall. The abdomen was opened and a large, red appendix with extensive adhesions to the great omentum was found. The appendix was full of pus and ready to rupture upon slight provocation. There was nothing in the history of this case to indicate the conditions present. Some days after the above occurrence a well built young man walked into my office and made known his errand by saying that he had an appendix that he thought should be removed. It had never given him much trouble and he wanted to get rid of it before it did. In reply to questions, he stated that he had had several attacks of pain in that region, lasting only for a few hours and never making him go to bed. Two physicians had told him that the pain was in his appendix. The history given made me concur in the opinion given by the other physicians. We arranged for the operation the following week and he went home to a nearby town to fix up his affairs. He had no temperature, no tenderness or muscular rigidity over the appendix. He said that he knew a fellow who had had trouble with his appendix and put off an operation too long. "I am going to get rid of mine while I am in good health—I have had warning enough."

Upon opening the abdomen, the appendix, with a slightly enlarged end but with no discoloration, was brought into view. The meso-appendix was thickened and adherent to the abdominal wall. There was pus in the club shaped end of the appendix.

Again going back to the question propounded, "When to Operate," it would certainly be safe to answer:

First. Operate at the onset of the disease, if possible.

Second. If not seen at the onset and it is evident that a pus cavity is being walled off, watch and wait for the proper time to open. After opening, be guided by the conditions found as to any further operative work at that time.

Third. If evidence of pus and general infection exists, open, drain and wait, even if local or general peritonitis exists, nothing can be lost by opening and drainage.

Fourth. If when first seen the patient is recovering from an attack, let him recover and then operate before he can have another attack.

The foregoing answers are based on the symptoms objective and subjective as have been found in every day work.

Quite recently, leucocytosis has become a factor in the diagnosis and prognosis of many diseases, including appendicitis. Where men who are competent to do the blood count are available, it is of great assistance in determining existing conditions when other means of diagnosis may be at fault, or, when for some reason, "The Friendly Guide Post" no longer gives the desired information.

Leucocytosis is defined as an increase in the number of leucocytes in the peripheral blood over the number normal in the individual case. The average number of white blood corpuscles in a healthy person varies from seven thousand five hundred to ten or twelve thousand per cubic millimetre.

Now as to the diagnostic help of leucocytosis in appendicitis. Bacteriologists have established some rules or guides that are applicable to this disease. A normal leucocyte count means nothing, the case may be mild, very severe or well walled off.

An increasing leucocytosis means a spreading infection.

If there is a rising white count, operate soon, regardless of the abdominal symptoms. If the white count is high but stationary, the operation can be delayed.

If the count is high and rising do not delay operating.

If the white cells diminish and there are signs of spreading inflammation as on-coming peritonitis, there is grave danger to be apprehended; also following a perforation the leucocytes will fall in number.

In catarrhal and chronic appendicitis there may be no leucocytosis.

In acute attacks the white count may be from ten to fifteen thousand.

In gangrenous attacks it may be from thirteen to twenty-five thousand. In pus cases it may be from fifteen to thirty-five thousand.

In abscess cases it may be from six to sixty thousand. In the mildest and in the most severe cases there may be no leucocytosis.

If the white cells do not decrease in number after operating, there must be a pocket of pus not being drained.

There may be a great variation in the white blood count and in using this adjunct we can again say the symptomatology does not *always* indicate the pathological conditions. The experienced finger on the pulse, the practised eye watching the respiration and noting the facial expression along with the snap in the eye, are still cardinal guides.

ADDRESS OF CHAIRMAN OF SECTION
ON DERMATOLOGY AND GENITO-
URINARY DISEASES.

BY E. O. SMITH, M. D.,
Cincinnati.

[Read before the Ohio State Medical Association, Columbus, 1908.]

There are just two subjects to which I wish to call your attention; not with any idea of a thorough consideration of them, but simply to bring them before this society, for I believe them to be very important. One is *venereal prophylaxis*, which is of especial interest not only to the members of this section, but to every practitioner of medicine and to the layman as well. When we take into consideration the fact that about 80 per cent. of all adult males are at some time or other infected with Neisser's gonococci; that about one-eighth of all the surgical operations performed upon women for diseases peculiar to them are made necessary on account of a previous gonorrheal infection; that most unintentional sterile marriages are due to a former specific epididymitis, a seminal vesiculitis or a salpingitis; that there are thousands of the blind who owe their unfortunate condition to a gonorrheal ophthalmia, innocently acquired; and that there are numerous individuals who as a complication of previous luetic infection are spending a sad existence within the confines of the institution for the care of diseased minds—we should be aroused to our duty as custodians of the health of our fellow men and apply ourselves arduously to the task of preventing in so far as is possible the diseases of venery and the terrible results that follow in their trail. What can be done to prevent venereal diseases? It has been rather conclusively demonstrated that prostitution cannot be entirely suppressed; then our attention must be directed toward the protection of the young men. In view of the fact that most cases of primary infection occur among the young men, a great many of whom have no idea of the gravity of such infection, much can be accomplished through instruction and education of the young man. Let him early in life be put in possession of the facts concerning the dangers of illicit and promiscuous intercourse and the long list of most serious complications that may follow his indiscretion. Let him know that the trouble may not end with him, but that he may convey it to some one else many months hence, or possibly transmit it to his posterity. I am confident that a great good can be done along these lines.

Our city health boards are very exacting about the report of and the control over some of the acute infectious diseases, and it is proper that they are. But why should syphilis and gonorrhea not receive more attention at the hands of the public health boards, since their ill effects are many times greater and much farther reaching than scarlet fever, measles or smallpox? There should at least be some plan of inspection and control over the prostitutes which will save some men from infection. Then, if every man who has either an active or a latent gonorrhea or who gives a history of syphilis not properly treated over a long period of time, be prevented from entering the "holy bonds of matrimony," many a woman would be saved the terrible ordeal of sacrificing her ovaries and Fallopian tubes, to say nothing of the agonies and sufferings of the acute attacks of salpingitis and pelvic peritonitis that precede the gynecologist's invasion of this region. By this means many unhappy marriages and some divorces would be prevented. There would be fewer children with corneal opacities or with total blindness, and fewer cases of congenital and inherited syphilis, with their complications. This is a very large subject, and the entire morning could be well spent in its discussion, but I have simply offered a few suggestions, briefly stated, but enough, I trust, to bring to our minds something of the conditions that confront us.

The other subject to which I desire to call attention is that of *functional disorders of the genito-urinary system*. This class of cases has not been given the consideration it deserves, neither by the general practitioner nor by the specialist. They have too often been looked upon lightly and indifferently, and after having gone from one physician to another, receiving the same indifferent treatment from all, they go from our care to the ever present charlatan, where they are not only not made better, but are in a worse state after than before. If the real condition of these patients was recognized and properly taken care of by the first physician consulted, satisfactory results would more often be obtained. These patients are *real* sufferers and need a very definite and positive treatment. We do not fully appreciate the fact that they are often in more serious need of our special care than are many who have organic troubles. They are too frequently told that they are "nervous," are quickly dismissed with instructions to take a cold bath each morning or evening and are given a prescription for some bromide. The physician is rather glad the patient has gone and secretly hopes that he will not return. However, he is not

surprised to have his patient return the next week and report "no better." He feels that the trouble is only imaginary, and that it is either of not much importance or that there is not much to be done that is curative, so he orders more baths and larger doses of the bromides, or possibly uses the battery or passes a sound. He may tell the patient there is nothing the matter with him and thus literally drive him to the quack.

The disturbance in these patients is of psychic origin, and it is the influence of the mind and of mental impressions and representations, which not only cause the disorder, but keep it ever before them as irremediable. It must be determined beyond all question of a doubt that there is no organic disease present. This is done by a most careful and thorough examination of the entire body. Having satisfied yourself that the trouble is of psychic origin, it must receive psychic treatment. The patient must be made master of himself by educating his reason. He must be assured that his trouble is functional and not organic, and that the treatment must be directed to the source of his trouble and not to what he considers local and organic. The physician must get the full confidence of his patient; he should talk to him as a friend and comrade. Then he can be made to understand that his affliction is purely psychic. When this is accomplished, the patient is well on his road to recovery. When there is no organic trouble, not only is time wasted, but positive harm is done by recommending perineal douches, by the use of electricity, by the passing of cold sounds or the deep urethral instillation of nitrate of silver. By this plan of treatment the patient is encouraged in his false ideas of organic disease and will think that his diagnosis is correct, as the physician is treating him for a local condition. In fact, the physician is not honest with his patient, for he knows full well that the local conditions are normal and that they do not need treatment. This local treatment only compromises the results. In some of these cases one is easily able to get control of his patient and dissipate his false conceptions of his troubles and to dispel his phobias. Others are more obstinate and many times will test the ingenuity and logic of the physician, but he must at all times be in command and master of the situation and need not be discouraged if results are not immediately permanent. It is always to be borne in mind that most of these individuals have suffered a long time and that it will require some time and patience to erase these false impressions from the patient's mind. *Materia medica* is not to be ignored. Many of these patients are anemic, and of course are to be treated accordingly. They should be given a

sound body in so far as it is possible so to do. Constipation should always be avoided or overcome, and this with little or no internal medication. Any patient who is constipated suffers from a greater or less degree of auto-intoxication, which is very deleterious in all cases, and especially so in the neurasthenic. In most instances constipation itself is a functional disturbance and can be successfully treated as such.

Pollakiuria without increased amount of urine is often of nervous origin. If the urine is normal in character and amount and there is no organic disease of any of the genito-urinary organs, even though the patient complains of being compelled to urinate every thirty minutes or every hour day and night, he can be assured of a cure. Without telling him the normal amount of urine for twenty-four hours, have him measure the entire quantity for two or three consecutive periods of twenty-four hours each and report with a specimen for examination. Having duly proven the normal quantity and character of the urine and the integrity of the organs themselves, one is in position to emphatically declare to his patient that he has no disease of the kidneys and bladder, but that the cause of his trouble is purely nervous. It must then be explained to him that the capacity of a healthy bladder is from eight to ten ounces, and that since he is passing about fifty to sixty ounces in twenty-four hours he has no right to urinate more than five or six times a day. He will insist that the demand is imperious and must be obeyed. He must be informed that nothing gives rise to a desire to urinate like thinking about it, and that he must remember that he has no organic disease and that he should pass his urine but five or six times a day, the same as every other healthy individual. If your diagnosis is correct and you skillfully manage the patient, satisfactory results must necessarily follow.

Phosphaturia is very frequent among this class of cases. It may be so marked that the urine is cloudy, or there may be even frothing as it passes from the urethra. Careful inquiry into the patient's habits as to diet and drink may explain the condition, and a few drops of nitric acid in the urine, with a proper explanation to the patient of the meaning of the condition and the test, will dispel from his mind any gross error in his interpretation of the cloudy urine. However, phosphaturia must not be mistaken for bacteriuria and vice versa.

Onanism and its effects on the general health have been exaggerated, and many young men are sexual neurasthenics because they have been led to believe that their early practices—or, perhaps better, *malpractices*—have so undermined their

entire physical constitution and so disordered their sexual organs that they can never again become normal. This is certainly an erroneous conclusion, as it has been estimated by those who have investigated this subject that a very large percentage of all boys practice masturbation more or less. This is not to be marveled at when we consider that sexual desires appear at an age before reason is well formed. Usually this habit is discontinued when he becomes a little older and is endowed with a better knowledge of morals and of things sexually. I would not leave with you the impression that such practices oft repeated or that sexual excesses have no ill effects, for they do, and we are all familiar with just such cases. The point I wish to emphasize is that the mere fact of this early error does not condemn the individual either morally or sexually. Most of these patients who come for advice will blushing confess their early practices and ask if anything can be done to overcome the damage done at that time. They suffer from ideas of "lost manhood," atrophied sexual organs, imaginary varicocele, sexual impotence and divers and sundry other imaginary conditions. These ideas are often due to books and pamphlets published by quacks and charlatans on the dangers of masturbation. Often the beginning of this sexual neurasthenia can be traced to the time when the patient read some such literature as above mentioned.

A thorough physical examination, careful instructions as to the proper food, exercise and hygiene, with a positive assurance that his former indiscretions have nothing at all to do with his present condition and that they must be entirely forgotten, will often bring about a healthy confidence that means success.

Nocturnal emissions are usually physiological, and their frequency within physiological limits will vary with different individuals. Unless they are abnormally frequent, in which case there is a cause, such as chronic urethritis, prostatitis or seminal vesiculitis, the patient's mind can be put at ease concerning the "terrible drain on his constitution from these night losses." Again, it must be determined that there is no organic trouble; then proceed as in other functional disorders.

There are some men who think their gonorrhea is not cured simply because they think they have noticed something which to them seems a variation from the normal. On the strength of their statements and their diagnosis, without even a superficial examination by the physician, they are given strong hand injections of the silver salts, zinc sulphate, etc., with internally large doses of oil of sandalwood, copaiba or methylene blue.

The local treatment does no good, but positive harm, by creating a real from an imaginary inflammation, while the internal medication produces gastro-intestinal disturbances, which only add fuel to the flame. The second condition of these men is far worse than the first. After these patients have gone from one physician to the other and have received the same treatment, with possibly slight variations, always with the same unsatisfactory results, they become confirmed gonorrheal neurasthenics. They believe they have a urethritis that will not heal, that they are beyond all hope of recovery and that marriage will never be safe for them. The picture of moral and mental despair that they present is truly a sad one. The majority of these patients are well insofar as infection is concerned, and if a careful and thorough examination proves them to be free from infectious germs, they must be assured that they are all right and that further treatment is not only not indicated, but that it would be positively injurious. The local condition is no longer the seat of disease, and it becomes the duty of the physician to correct the psychic disturbance.

Great care and caution should be observed in not making an inverse suggestion to a patient, for by one indiscreet remark a false idea may remain with him that will be very difficult to correct or eradicate. The disease can be created entirely by the physician himself. I can best make this point clear by referring to such a case. Mr. A., aged twenty-four, bookkeeper, pathological and venereal history negative, consulted a physician some months ago for a sore throat. The physician, while examining the throat, made the remark that "it looked suspicious of syphilis." The idea of the possibility of his having syphilis, coupled with his dread of the disease, so occupied this patient's mind that he could not sleep, his appetite was gone and he could not perform the duties of his daily work with any degree of satisfaction. He was always thinking about this terrible disease. He had experienced no other symptoms that could be attributed to syphilis, but this became his one all-absorbing thought. After a short period of treatment with the first physician, he came to me for treatment for his syphilis. Not being able to find any evidences nor to get any history of syphilis, I kept him under observation for some weeks. After assuring and reassuring him that he had no such disease, he finally agreed that I was correct. Every few weeks he will suffer a relapse and return in a very despondent mood, thinking that possibly I might have been mistaken. Every little redness of the skin or pimple that he discovers sets him to thinking, and the more he broods over it the more fixed be-

comes the idea that he surely is a terrible sufferer from that awful disease. It requires a very strong talk to get him right again, but he always yields and goes from the office a very much relieved individual. He had been changed from a man of light heart and cheerful nature to a condition bordering very closely on that of melancholia. These few months have been months of misery to him, all on account of a single remark, thoughtlessly made.

Many other functional disorders of the genito-urinary system could be mentioned, but I trust enough has been said to emphasize the fact that they do exist, that they are deserving of our serious consideration, that they are of psychic origin, and that they are amenable to psychic treatment.

EXPERT TESTIMONY AND MEDICAL JURISPRUDENCE AS RELATING TO THE EYE, EAR, NOSE AND THROAT.

BY SPENCER M. JONES, B. A., LL. B.,
Cincinnati.

[Read before the Ohio State Medical Association, Columbus, 1908.]

The subject of medical jurisprudence, including all questions of expert testimony, may legitimately be treated by both doctors and lawyers. It concerns itself with those rules of law that are interesting to a doctor by reason of the fact that he is an active practitioner. The subject is limited by the small point of contact of the two professions. The difficulty of the doctor in treating of the subject is that he soon leaves the subject of medical jurisprudence and dwells with emphasis upon questions of medicine pure and simple. The difficulty of the lawyer is that he finds himself away from the subject of medical jurisprudence and discussing questions of law. The points of view are opposite and therefore the features of the subject that interest each are in general different. To do the subject full justice one would have to be fully and equally acquainted with both professions.

"Law" as used by us must necessarily be distinguished from the expression "Law" as used in physics or the law of nature.

The laws of nature consist of those laws which are common to all mankind and are supposed to be as nearly as can be conjectured independent of the accidents of time and place.

In physics it means a necessary rule of conduct or a course of action that an inanimate object will invariably take under the same conditions.

When the subject is a human being the study of law becomes unlimited. We don't know what the actual course will be, that he is going to pursue. The law prescribes what is a proper course for him to pursue and then attempts with a fair degree of success to coerce him into that course by fixing proper penalties for non-compliance.

The complex system in force at present for the purpose of administering justice has a two fold origin and is divided into the common law and statute law. The common law, by far the most important, consists of the rules of law followed by courts as a matter of precedent. A ruling of a judge attracting attention because of the clear justice expressed, and the logic employed to arrive at the judgment, has been followed by a brother judge and succeeding judges until the principal expressed became as much a fixed law as it would be were it enacted by the legislative body. These judicial opinions that are called the common law are well defined and fixed and a knowledge of them can be acquired by the student by studying historically only the laws of England and the United States from the time of the Feudal System of property rights until the present time. The common law slowly changes to suit new conditions not spontaneously but sluggishly and reluctantly as lawyers and judges are lovers of precedent. The life study is to acquire a knowledge of precedents and any departure is unfavored.

All our property rights are fixed by the common law. All terms, expressions and phrases used must be read with a knowledge of the law historically that gave them that particular meaning.

Nothing need be said of the statute law or legislative enactment. These can be passed by the general assembly of the state at any session and repealed with like liberty. The only limitation being the power of the court to say whether or not the law in question is consistent with the limitations contained in the constitution of the state or the powers granted in the Constitution of the United States. The modern tendency is to cover all subjects by statute law. This is not ordinarily a departure from the common law but it is an attempt to declare briefly and in simple language what the common law is, so that less confusion results. Of course laws sometimes change what had hitherto existed as common law. They are therefore divided into legislation in derogation to the common law and legislation declaratory of the common law. We find quite a number of provisions codifying our laws. The subject of pleadings and procedure in court, criminal laws, laws governing negotiable instru-

ments, laws relating to the granting of divorces, etc., are fully expressed in black and white in our statutes.

The general practitioner or the specialist may come into court in three ways—as plaintiff, as defendant or as a witness. We might add as juryman but that could not be interesting to us now as firstly, he would not be there in his capacity as doctor and secondly the judge would excuse him as a matter of courtesy if he desired.

As a plaintiff he is seeking relief. The two common examples are suits for his bill of services and suits for libel or slander. In suits for his services the questions that arise are purely legal and not part of the subject of medical jurisprudence. The debt is created as a matter of contract only and the terms of the contract absolutely control. Recovery can be had for the agreed price. The contract of “No cure no pay” has been upheld. In the average case the patient steps into the specialist’s office and after a few unpleasanties on the part of the sufferer as to how he feels and a few pleasanties on the part of the doctor as to how he will kill or cure him, the treatment commences. Nothing has been said as to length of treatment or price to be paid and yet a definite contract has been made. The patient by his conduct has agreed to co-operate with the doctor in effecting the relief sought and to pay the customary charges of that specialist.

The doctor by his conduct has first represented that he has sufficient knowledge and skill to undertake the employment—secondly that he will use knowledge, skill and care to prevent unnecessary injury and lastly that he will charge his customary charge for that particular work. The patient may always assume that a like charge will be made on all occasions for the same service. The specialist may not mentally raise his prices without notice.

The position of the specialist with reference to the right to charge differs from the position of the general practitioner. The public knows that the specialist has fixed charges for work in his office and they are bound to inquire. The services of the general practitioner are so varied in nature, consisting of both office consultations and treatment at distant homes, that a fixed schedule cannot fairly be maintained. The specialist may charge in proportion to his reputation for skill and care. There is no limit to his right to charge provided there is notice to the patient either by actual contract or by an adopted schedule of prices furnished to all alike. The law recognizes that the services of a specialist are of a very dignified character. A man’s wel-

fare is largely dependent upon the acuteness of his senses. The eye, ear, nose and throat are the means of exercising at least four of the five senses. If anything is wrong with the sense of sight, hearing, smelling or tasting, one of our specialists can furnish relief of a most important character. The sense of touch stands upon a different foundation. Its development would not be encouraged by any specialist. There are no instances on record of one’s ability to touch being impaired.

A doctor may have recourse for any verbal slander or written libel that injures him in his professional capacity. The truth of the statement is generally at issue. If the statement charges the doctor with a lack of knowledge or skill or with adopting a course of practice that was careless, then if circulated the law presumes some damage done. Of course it may be the truth. We know that the truth hurts more than a lie and it is often said the greater the truth the greater the libel. However, the law without much limitation allows one to tell the truth about another.

A common form of slander is the expression “quack.” Among the profession it has a much varied meaning. Ordinarily it is aimed at one who has violated some of the ethics of his profession without reflecting on his actual ability. Among the laymen it means one who has not sufficient knowledge to safely pursue his profession. At least the law has given it this meaning. It is therefore a dangerous expression to use unless you are prepared to prove that the doctor in question is lacking in skill and knowledge.

The absolute or literal truth of a statement is not always a defense in a suit for slander. A famous Cincinnati lawyer was once publicly called a “flat head.” When brought into court the offender took refuge in the fact that the lawyer’s head was very level and bald on top and of peculiar flatness. The court and jury held that the words were slanderous.

Words, therefore, are taken in their general or broad sense and not their literal sense.

The doctor as defendant is an unpleasant subject. This is ordinarily an attack upon the doctor for some claimed malpractice. Even if no recovery be had and the verdict of the jury in words exonerates him, the public verdict often is “guilty but not proven.” On the other hand, a verdict against him means a direct financial loss and an indirect loss because of a smirched reputation.

In addition to the technical requirements of the state as to the practice of medicine including all specialists, the law has fixed standard attain-

ments every physician must have, before he can attempt to practice. Without these attainments he is sure to be in difficulties. The law says that the doctor must have that amount of theoretical knowledge and practical dexterity that is possessed by a physician or surgeon of average ability. Having these qualities, he must in addition use that degree of care that an ordinarily prudent and careful man would use under the same circumstances. This of course is very indefinite but it is the question that is universally given to the jury to be solved. In the case of a specialist the required qualification is not only knowledge but dexterity in the use of instruments. The most able student and thorough master of his branch may be absolutely incompetent to practice because he lacks the clear eye or the steady hand necessary to successfully follow his profession. On the other hand one may possess by nature the ability of a surgeon and his knowledge of the art may be so superficial that he is as dangerous in his profession as the man who is unskilled in the use of instruments.

The carelessness of a doctor may take many forms. He may carelessly undertake an operation that he has no business to handle. It must be remembered that the specialist is absolutely at liberty to decline any professional work that is offered him. His first inquiry necessarily is whether or not the case is one that he is able to handle. If he decides that it is not, the patient in the eyes of the law has no grievance, as a doctor is not obliged to treat one and all alike. If the doctor therefore undertakes the treatment of a case that is beyond his power, his carelessness would be classified as carelessness in undertaking the employment. He would be liable notwithstanding the fact that he used the greatest degree of care and all his skill and knowledge. The specialist may carelessly diagnose.

The specialist may be careless in the manner in which he performs his work. This assumes that he is able to take care of the case and that he has sufficient theoretical knowledge and practical dexterity but that through carelessness pure and simple, he does not use what skill he has. This is the most culpable form of malpractice. The most serious question arises with reference to the use of the anesthetics. He must first determine whether or not a local anesthetic will suffice or whether complete anesthesia is required. It is his duty to make an examination of the condition of the patient to see whether an anesthetic can be administered without serious consequences. His safer course is to consult the family physician who knows

the exact condition of the patient. There is no question but what a doctor would be guilty of manslaughter that administered an anesthetic that produced death if he had done so without making the necessary examination.

An Ohio statute makes it a criminal offense to administer a total anesthetic without a third person competent to be a witness being present. This is for the protection of both patient and doctor. Malpractice is divided into three classes—wilful or criminal malpractice, negligent malpractice and ignorant malpractice.

Nothing need be said of the matter of cleanliness. The doctor would be liable if through his carelessness in taking care of his instruments, a disease was transmitted to one of his patients. It would be most difficult to prove that the disease came from that cause, but the fact that the offense could not easily be detected does not keep it as a matter of fact from being most serious.

The doctor, when attacked in a malpractice case, summons to his aid other doctors of the same standing in the profession.

If he is a physician in good standing and has followed the ethics of his profession, he will have no difficulty, provided he is really innocent, in establishing that fact, by the absolute weight of expert testimony.

Ordinary methods may be pursued with safety. The course of treatment pursued by others is recognized as proper and one is always justified in using it. Experiments are not sanctioned. However, advancement in the art and science constantly occurs. The credit is due to those who have sufficient nerve to depart from the method universally pursued and who have sufficient knowledge, skill and progress to successfully furnish new remedies. They enter new fields at their peril and are therefore deserving of great credit for the risk they run in a good cause and for the benefit the profession receives from their advanced methods. The success of the specialist depends upon many qualities. He must have knowledge of his science acquired by the deepest study. He must be able to impart this in plain, every day terms for the advice and encouragement of the patient. He must be skillful in the use of instruments. Few understand that his qualifications consist both of complete knowledge of his science and the natural ability to handle instruments. A most unusual combination yet one that is found in every successful specialist.

The third position that a doctor may assume in court is that of a witness. He may testify from actual knowledge of the particular case or he may have no knowledge of the case and merely

answer a hypothetical question that assumes the existence of the material facts at issue. He may testify to certain well known scientific facts or he may give his professional opinion.

The whole matter of expert testimony has been placed before the general public as being of little value, because when employed on both sides of any case it is conflicting and anything but convincing. The doctor is accused of advancing principles in court that he would be ashamed to follow in his own office. The lawyer is accused of attempting to browbeat, intimidate and accuse the physician by way of cross examination.

The lawyer may wilfully misunderstand the plainest statement and may assume an attitude insulting in the extreme, indicating that he does not believe a word that is said. In addition to causing justice to miscarry the reputation of the doctor may be seriously injured. The most skilled may make poor witnesses. A doctor suddenly called to answer a peremptory subpoena may at any moment be required to go upon the witness stand as an expert. In that place, unless he be well posted in medical jurisprudence and possess the coolness and self-reliance required to repel the onslaught of the lawyers, his reputation for knowledge and skill may receive in a few minutes injuries that cannot be repaired in a life time.

The secret of the entire trouble is that lawyers and doctors are human and become partisan in every controversy. The lawyer, theoretically, when he seeks the light of expert testimony upon some subject of medical jurisprudence that is at issue in court, is seeking the truth only. However, he has been by experience forewarned that he will hear many opinions on the subject expressed, all honestly given but conflicting. His first duty is toward his client and therefore in his behalf he gives credence to those opinions only that favor his particular cause and promptly forgets that he has ever heard the other opinions expressed. He, of course, is partisan and does not deny it. The position of the doctor is similar. His primary object ought to be to aid the cause of justice and to render his honest opinion. When the diplomatic lawyer approaches him, he frankly expresses his opinion. If it is one that promotes the cause of the client, great satisfaction is expressed. The doctor is given to understand that the evidence he can give is of the greatest importance and will be the deciding feature in the case. The doctor, therefore if he undertakes to testify, becomes interested not only in having his statement tell with effect as he delivers it, but also to have it fortified when it is

tested from all sides by the attacks of a skillful lawyer on cross-examination.

The doctor, therefore, although not financially interested in the outcome, becomes in fact partisan. He is anxious to be believed and anxious to have the case decided on the question of his own testimony. Unconsciously he takes sides and helps along the particular fight just as does the lawyer.

If the opinion of the doctor is honestly believed and is in fact supported by medical authority and the witness is fairly intelligent, the cross-examination will of course merely strengthen his case in chief. It will give the expert an opportunity to enlarge upon and emphasize all the details upon which he based his opinion. It would be wisdom on the part of an attorney to let alone an honest and intelligent medical expert. He would otherwise do his cause an injustice by making an unsuccessful attempt to break down evidence that necessarily must stand because it is the truth.

If, however, the testimony of the medical expert was not honestly believed, was not supported by medical authority or was ignorantly announced without proper consideration, the lawyer with some knowledge of medical jurisprudence and of the art of cross-examination will surely get him into trouble.

The skilled cross-examiner will push the opinion to its logical conclusion, resulting in an absurdity. The doctor may either announce his mistake or foolishly stick to his statement, giving one opinion after another, necessary conclusions of the premises that bring him into ridicule.

The public have been startled by many strange opinions coming from doctors thus cornered in the witness box.

In an old English criminal case a woman was found dead as the result of poisoning. About a grain of prussic acid was discovered in the stomach of the deceased by an experienced chemist.

The circumstances pointed conclusively to the guilt of a certain man. A doctor took the stand for the accused and testified that prussic acid could be formed from the seeds of apples that the deceased had eaten. When pushed on cross-examination, he testified that the presence of apple seeds was sufficient to account for the presence of a grain of prussic acid. Needless to say, a conviction followed, notwithstanding this learned opinion.

In a trial for murder, it appeared that the deceased and the accused had both shot. The deceased had been shot through the heart. The

defense claimed that necessarily the deceased had fired first and that the accused had fired in self defense. An eminent surgeon of Cincinnati expressed his opinion that a man shot through the heart could aim and discharge a pistol. Needless to say the accused was acquitted.

These are mental controversies between the doctor and lawyer—one is trying to conceal part of the truth and the other is trying to seek the truth. Sometimes the doctor is the offender and sometimes the lawyer. Sometimes truth is triumphant and sometimes intelligence without scruple succeeds.

This does not mean that the lawyer is violating the ethics of his profession or that the doctor has perjured himself. It generally means that in the excitement of this battle of wits, the legal expert and the medical expert have taken extreme positions without due consideration.

The matter of a standing medical committee to act as the friend of the court and to testify on all matters in which medical jurisprudence is important has often been favored. It is supposed that this committee would never become partisan. This arrangement does not preclude the introduction of additional medical testimony whenever counsel desires. As a matter of fact the prosecution in criminal matters alone call upon the standing medical expert. The defense soon considers the court's physician as an enemy. This expert without knowing it identifies himself with the prosecution and seldom sees anything of benefit to the accused.

The evil does not lie in the system in force but in the caliber of those in the two professions. However, justice seldom miscarries and the evil constantly decreases as learning advances. There is no use in being pessimistic over the outcome. The perjured witness is a rare exception. Any inclination to practice fraud can be exposed with intelligence. Each exposure lessens the evil. If the lawyer were always thoroughly acquainted with the particular subject of medical jurisprudence under consideration he could readily detect and rectify any false testimony. If the physician mastered any question of medical jurisprudence before he attempted to testify he could not err unintentionally and would not dare to do so intentionally.

THE PROFESSIONAL ANESTHETIST AND ANESTHESIA.

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[Read before the Ohio State Medical Association, Columbus, 1908.]

From the time Lord Lister announced the causes of surgical sepsis a vast army of bacteriologists and pathologists over the entire world have been studying this problem and its prevention, until today major operations are performed with infection in even less than one-half of 1 per cent. the cases operated in hospitals. Such has been the progress in the field of asepsis.

On the other hand, anesthetics, the hand-mate of surgery, has a mortality rate almost as high today as twenty years ago, and this because only a few theorists have made laboratory experiments, and still fewer have engaged in the practical field as anesthetists and developed the technical side, and because the medical colleges have failed to give and still fail to give actual courses in the administration of anesthetics.

The senior medical student receives a perfect course of instruction in major surgery, and the recent graduate is more capable of performing many a major operation than of administering an anesthetic. A large percentage of all operations are of but minor importance, and in relatively few is life itself endangered, while, on the other hand, no anesthetic can be considered as minor, for in every anesthesia the life of the patient is gravely endangered by the anesthetic.

Comparatively few operations exert remote effects, while every anesthetic not only exerts a profound immediate effect upon the nervous system, heart, lungs and kidneys, but may be the beginning of and the direct cause for remote degenerative changes in these organs.

The Professional Anesthetist.—The importance of the anesthetic has not been realized as much by the surgeons, and especially by men doing occasional surgery, as by the laity, who usually have a greater fear of the anesthetic and its effects than of the operation, and it is not unlikely that the position of the professional anesthetist will be established largely by the force of popular sentiment, for an anesthetic calamity receives such wide circulation as to often become general conversation, while a death resulting during or soon after an operation is taken in the light of the patient having received the best possible life-saving service.

Just why the physician, and especially the surgeon, have not recognized the importance of the anesthetic may be difficult of explanation, for surely the surgical results would be far better if the anesthetic were administered as well as the usual operation is performed.

In determining the causes of shock the anesthetic factor must be considered, for the vitality of the patient during the time of anesthesia is usually lowered as much and often more by the anesthetic than purely as a result of the operation. That this is true, just observe the frequent profound depression which occurs in the preliminary stage of anesthesia, especially when chloroform is administered, and it is in this preliminary stage that the greatest difficulties and most frequent fatalities occur.

If the anesthetic is of equal and frequently even greater gravity than the operation, it becomes the duty of the physician to his patient to select as competent an anesthetic as he selects a surgeon, and for his own sake the surgeon should not introduce into the operation a factor which may be detrimental to his surgical results. Many surgeons have recognized the importance of the anesthetic. Especially known to us are Sir Victor Horsley, the Mayos, Murphy, Ochsner, Baldwin, Crile and many eastern men.

Preliminary Anesthetics.—Many surgeons desire that the patient receive a hypodermic of $\frac{1}{4}$ grain of morphine a half hour before the anesthetic. During the past few years 1-100 grain of scopolamine, or, what is probably the same, hyoscine hydrobromide, has been given by hypodermic a half hour before the anesthetic, or the general anesthetic is preceded by ethyl bromide, ethyl chloride or nitrous oxide.

These preliminary measures are introduced to lessen or to prevent the struggling stage, to shorten the period for psychological influences, to hasten the anesthesia and to lessen the amount of anesthetic.

To those who administer an anesthetic occasionally these preliminary measures can be of no value unless one is familiar with their use, effects, benefits or possible dangers, but they are most valuable adjuncts to the professional anesthetist, whose experience and judgment are such that he knows what modifications are compatible with the general anesthetic which is to follow and how the patient will probably tolerate them, just as the skillful surgeon knows how to depart from a standard method of performing a particular operation so as to gain a better result.

Within the past few years nitrous oxide-oxygen has gained a most deserved prominent place, first as a preliminary anesthetic, especially to ether,

and, secondly, as a general anesthetic. This anesthetic is ideal for many short operations, and in the hands of the expert may become so in some major operations.

The reasonable objections which must be cited against nitrous oxide as an anesthetic for major operations is that its use must be confined almost entirely to the hospital, for the anesthetic and apparatus are both expensive, and one must have a large experience before. He can possibly administer it as a general anesthetic.

Chloroform.—The dangers from chloroform are so well founded and so universally recognized, especially in this country, that even in the hands of the expert it can no longer be considered a safe general anesthetic.

The Present Ideal Anesthetic.—The present ideal anesthetic is what I have termed ether-air anesthesia, or the administration of ether by the drop method. The writer speaks from a personal experience of nearly 1000 anesthetics by this method, while the Mayos have given it over 20,000 times, and it is used almost entirely by Murphy, Ochsner, Baldwin, Rice, Crile and many others, and has grown into such favor that it is fast becoming a universal method in the United States.

Technic of the Method.—The ordinary Esmarch or chloroform mask, covered with six or eight layers of gauze, is held three or four inches above the patient's mouth and nose. The patient is directed to count slowly after the anesthetist, or to breathe in and out, or to blow the vapors away.

The ether, contained in the ordinary chloroform bottle, with dropper, and warmed in cold weather by immersing the bottle in hot water, is allowed to drop on the mask somewhat more rapidly than if it were chloroform. The bottle is moved continuously, so that each drop falls on a different spot on the mask, and is thus thoroughly mixed with air, so that when it is inhaled from the mask it enters the lungs as a partially warmed gas, well diluted with air. The mask is lowered gradually; at the same time the drops of ether are increased until a very fine, continuous, steady stream is being spread over the entire mask. The mask is finally lowered until it almost touches the face.

The average patient will be able to count from seventy to eighty; others 120 before unconsciousness begins. This will require from two to three minutes. At the end of a period of from five to seven minutes the patient relaxes and is sufficiently unconscious, so that the final preparations for the operation may begin. By the time these are completed the patient is in a condition of surgical anesthesia. To accomplish this, from two to two and one-half ounces of ether have been

administered, and from twelve to fifteen minutes have elapsed. Once the patient is thoroughly anesthetized he is saturated, so to speak, and a lesser quantity of ether is given to keep him in this state.

During an operation lasting from one to one and one-half hours from five to seven ounces of ether are administered. Soon after the anesthetic is discontinued the patient comes to, and frequently awakens before leaving the operating room.

Advantages of This Method.—Some points of advantage of this open drop method as compared with the cone method in producing ether anesthetics are: By the open method the patient takes in almost as much fresh air as when awake. The loss of consciousness is due to the anesthetic effect of the ether, without the added partial asphyxiation. Therefore, this method is one of purer anesthesia.

By this method the factors of carbonic acid gas poisoning are eliminated and need not be considered. The patient is so gradually introduced to the anesthetic that the change is a transitory one, during which time the mind, brain, heart, lungs and circulating apparatus quietly adjust themselves to the new condition of anesthesia.

There is little, if any, holding of breath, choking, coughing, struggling, rigidity or vomiting. The patient's eyes are bright, the skin is warm, the peripheral circulation about the face and head is almost a blush. Considered as a whole, the patient appears more as if asleep than when under any other anesthetic.

The Dosage.—The dosage can be governed to a fine point and is within the control of the anesthetist. The patient can be kept just under, and there rarely exists a state of profound anesthesia.

This method can be taught generally. It can be administered to the infant, the adult and the aged. It is adaptable to most climates, and, considering the important points, as safety, ease of administration, minimum depression, rapidity of regaining consciousness, lack of nausea and vomiting, possibility of bronchitis or pneumonia, and the immediate and remote effects on the nervous system, heart, lungs and kidneys, ether-air anesthesia must be considered the at present elective method in the hands of the inexperienced as well as professional anesthetists.

HISTORY AND ADMINISTRATION OF ANESTHETIC DRUGS.

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[Read before the Ohio State Medical Association, Columbus, 1908.]

In the sixteenth century, digital compression of the carotid arteries was performed to produce anesthesia, and is practiced today in some of the aboriginal countries, the Greek and Russian translation for carotid being "the artery of sleep." It is possible that "the wine of the condemned," mentioned by the prophet Amos, was a preparation of Indian hemp and the juice of the poppy, and not improbable that this is what was, according to St. Mark, offered to Christ before nailing him to the cross to lessen his sensibility to the agony.

We find the earliest reference to inhalation anesthesia contained in the works of Herodotus, who states that the Scythians were accustomed to produce an intoxication by inhaling a vapor of a certain kind of hemp which they threw upon fire or stones heated for the purpose. This was probably cannabis indica, or Indian hemp, which was used by the oriental races as an anesthetic. The first mention made of mandragora atropa, as an anesthetic was by Dioscorides, A. D. 100, who evidently recognized the anesthetic effects of the drug by giving three wineglassfuls of a liquid preparation of the root to those about to be cut or burnt. The practice of surgical anesthesia came to the Roman empire from the Greek schools, because the mandragora which they used grew largely in the Grecian archipelago. As early as 220 or 230 A. D., a Chinese physician used a preparation called ma-yo, said to be probably Indian hemp, which caused an insensibility during which operations were made. Thus we can see from the many allusions the two most important drugs used in ancient anesthesia were mandragora and Indian hemp.

In the middle ages, the sleep produced by the method of Hugo of Lucca was so profound that the patient continued in that condition for several days afterwards, and was finally awakened by dipping sponges in vinegar and applying them frequently to the nose. (Vinegar has been used in the present age to prevent nausea and vomiting.)

In the eighteenth century the ancient method of compressing the carotid artery was revived. It was suggested that it might be used on human beings after the experiments of Morgagni on animals in 1750. James Moore, in 1784, proposed the

compression of the nerves of the limb to be operated on. This was tried by Hunter and others, with but little success. Thus we see, from the dawn of creation, anesthesia for surgical operations has been practiced to some extent.

In 1767 a series of chemical discoveries by Priestly led to the administration of gas and vapors of a definite composition by inhalation. In 1799, Sir Humphrey Davy found that the inhalation of nitrous oxide gas from a box or chamber of his own construction relieved toothache. Davy's teachings were overlooked; however, and not until the year 1818 did any further development occur. In this year Faraday pointed out, in the *Quarterly Journal of Arts and Science*, that the inhalation of ether produced effects similar to those of nitrous oxide. At this period the gas or ether was inhaled from a bladder, and there was a rebreathing of the exhaled vapor back and forth from the bladder, as we find at the present day with the Clover inhaler.

It was in 1844 that Dr. Colton demonstrated the action of nitrous oxide gas. Dr. Horace Wells, being a spectator, determined to test this gas on himself by having a tooth extracted, and the experiment was satisfactory from a dental standpoint. Later Wells went to Boston and was invited by the senior surgeon at the Massachusetts General Hospital to give it to a patient for the extraction of a tooth, but owing to the removal of the bag too soon this experiment was a failure and Wells was denounced as an impostor. After this failure nothing further seems to have been done for a while to investigate the use of nitrous oxide.

In 1829, William E. Clarke, a medical student, began amusing his fellow students, among whom was W. T. G. Morton, with the inhalation of ether administered on a towel. In 1842, Dr. Long gave ether to a patient for the removal of an encysted tumor, the operation being completed without pain or accident. A number of other operations were done by Long in the next two or three years, but his discovery remained unknown and unpublished until long after the anesthetic properties of ether were known elsewhere. Dr. Morton gave a practical demonstration of ether in tooth pulling in the year 1846, which was entirely satisfactory. October 17, 1846, he gave ether successfully to a patient for the removal of a tumor of the neck. This operation was done at the same hospital in which Wells had tried nitrous oxide gas, but instead of Morton being declared a humbug, as was Wells, he and his experiment became known world wide. Up to this time Morton had not disclosed the nature of his anesthetic, but on November 17, after two major

operations had been performed successfully under its administration, he was willing to let it be known. Following the suggestion of Dr. Oliver Wendell Holmes, the condition was called anesthesia, and the agent anesthetic. Although Dr. Jackson supplied the inspiration, Morton was given credit of the discovery by the United States government.

The history of the discovery reveals to us that although Morton and Jackson were the real discoverers, they after all were but followers of Collier, who put himself to sleep by its use in the University College laboratory, London.

December 19, 1846, Dr. Robinson performed the first dental operation in England, and December 21, Dr. Liston the first surgical operation under ether. The apparatus used consisted of a large bell-shaped container for the ether, to which was attached a long tube and mouthpiece. Although chloroform as a substitute was known as early as 1820, its real discovery was in 1831, by Samuel Guthrie, and was published in the *American Journal of Arts and Science*, in October of the same year, being entitled "Chloric Ether." Souberians claimed, in a French journal in 1832, that he had discovered the same method of preparation in 1831, and named it bi-chloric ether. Liebig, being a third claimant to its discovery, appeared just six months later than Guthrie. Waldie, of England, was the first to suggest to Sympson its use as an anesthetic. He decided on November 4, 1847, to experiment with it on himself and assistants, and on November 10 he reported his discovery to the Medico-Chirurgical Society, of Edinburgh. A number of other drugs have been suggested and tried. One of the most important is the bromide of ethyl, first discovered by Serulus, in 1827, and introduced as an anesthetic by Nunnely, of Leeds, in 1865. Also ethyl chloride, the anesthetic properties of which were recognized by Florens and others, and which was recommended as a good anesthetic by Richardson in 1867. Lotheisson claims the latter stands next to chloroform in mortality, but its danger is not reached quite so suddenly as with chloroform.

METHODS OF ADMINISTRATION.

We recognize three distinct systems of anesthesia—the open, the valvular and the closed. By the open system large quantities of air enter the lungs with the vapor, and the expirations escape freely into the surrounding atmosphere. There is no essential difference between this and what is termed the "semi-open" method, except that in the latter the vapor is more condensed. Most mixtures are administered by the semi-open inhalers.

In the valvular system, both inspiratory and expiratory valves are present. In methods of this kind there is usually an undetermined amount of the vapor inhaled, and expirations escape into the atmosphere. Nitrous oxide, nitrous oxide and oxygen, and percentage mixtures of chloroform are usually administered by this method.

In the "closed" method, the inhalers either contain no valves or the valves do not work automatically. To the face piece of most of these inhalers a bag may be attached, the capacity of which is not important, into and out of which the patient breathes an imprisoned air, charged with the vaporized anesthetic. Unless the inhaler is removed, or air admitted by valves, this vapor loses in oxygen and gains in carbonic acid. The effects produced by this method depend not only on the amount of vapor for respiration, but on the quantity of air mixed with it and the amount of oxygen this air may contain and the length of time the rebreathing is continued. The quantity of air and vapor in these inhalers depend largely on the size and flexibility of the bag. The depth of the anesthesia will be lessened the more oxygen admitted, and increased the less oxygen we admit. Hewitt claims the oxygen limitation is of greater importance than the carbonic acid gas retention. He arrived at this conclusion in the year 1890, after giving nitrogen with only five-tenths per cent. oxygen, to nine patients at a dental clinic in London. To an onlooker there could have been no difference in the phenomena produced and those by nitrous oxide. He also gave nitrogen with larger amounts of oxygen, 5 and 3 per cent. respectively, and found a much longer time was required to produce similar effects than with the practically pure nitrogen, showing conclusively that it is the limitation of oxygen that causes the more profound anesthesia.

There are, undoubtedly, advantages which one method may have over another. I shall consider but two, the open drop, and the closed methods. The valvular system, I think, has few advantages, if any, and I very much doubt the claims of a few men that we can depend on any valvular apparatus yet devised to give us an accurate percentage mixture, or one in which the vapor may be warmed to a temperature similar to that of the body.

As most if not all the apparatus for administering nitrous oxide gas are cumbersome, and its value as a preliminary to ether or chloroform, or as a general anesthetic in minor operations, is much inferior in my estimation, I will not take up the administration of this drug but will pass on to the more commonly used.

I use ether as a general anesthetic almost exclusively, chloroform only in exceptional cases being preferred, bromide of ethyl in minor operations, and always as a preliminary.

I have used different methods of administration of these drugs. The semi-open method by the Baldwin or the Allis inhaler, was used in the first 3500 anesthetics. In the last 3000 cases I have employed the open drop method, using the Yankhour mask, with rubber over the top of the mask, in which was cut a hole about two inches in width and three inches in length. Too much air was admitted with simply a few layers of gauze over the mask and nothing to limit it, hence the above idea was tried and proved very successful. Later I devised a mask for my own use that has proven much more convenient. An old Yankhour mask was made impervious from the trough, forming a face piece about two inches high on the inside, with some wire mesh extending ovaly over the aperture in the top. From the trough, on the outside, the same material extended about one inch high all around, making the trough much higher, so that any excess of ether would not trickle down on the face of the patient, as it surely will if the patient be hard to keep anesthetized and is in the Trendelenburg posture. Over the top of the mask are placed about eight thicknesses of gauze, and the wire spring keeps them in place. The ether is dropped on as usual. This mask has proven a great success as an inhaler for the open drop method of ether. It has also been used for the bromide of ethyl and even for the chloroform.

McNeil is right in saying that there are few if any contra-indications to the use of ether if given cautiously and only enough. He thinks that an organic lesion of the kidney is often, at least symptomatically, benefited rather than damaged by prolonged etherization. Thornton, in the California Practitioner, prefers chloroform, because of the increased blood pressure under ether.

I prefer ether if cautiously given and if the patient can be satisfactorily kept anesthetized without too large a quantity; otherwise I use a little chloroform at intervals to produce more profound anesthesia.

By some surgeons chloroform is preferred in operating on the brain. As this class of patients require very little anesthetic and need stimulation, ether is to be preferred.

McNeil is right when he says that in most chronic pulmonary cases ether is to be preferred because of its stimulating effect on the circulatory and respiratory centers; also it increases blood pressure, throwing a less amount of work on the

already weakened lung tissue. As the breathing capacity of the lung is limited, and not a sufficient amount of oxygen is inspired, ether by the open drop method, or the close method with at intervals inspiration of pure oxygen, or ether mixed with oxygen is preferred. Lengemann claims that with oxygen chloroform is much less toxic than when administered with air. He considers the ideal anesthesia to be that produced by ether, enough chloroform being added at intervals as necessary to produce relaxation. Reith, of Lancaster, Pa., (*Therapeutic Gazette*) claims that patients can be more easily controlled by the open drop method than by any other. I have had a great deal of experience with the open and close drop methods, and the semi-open method, and am sure that patients can be kept in a more satisfactory state of anesthesia by the close drop method than by any other.

By the closed system the vapor may be inhaled either with pure air by opening a valve, or by closing the valves pure oxygen, or ether mixed with oxygen, may be inhaled at intervals according to the needs of the patient. This system is better than the semi-open, in which the installment plan is used, because with the latter we cannot estimate the amount of etherized vapor the patient is getting, neither can we accurately estimate the amount by the open method as so much of the vapor escapes into the atmosphere.

After carefully using and studying the various methods my opinion differs from many as regards the safety of the patient when satisfactorily anesthetized by the open drop method.

The anesthetist should be so adept in his art that he knows at all times just how profoundly the patient is under the anesthetic, and this is almost impossible if he is using this method. It is a difficult matter to give patients too much ether by this method; indeed, the trouble lies in producing profound enough anesthesia and keeping it up. We should always consider the safety of the patient in selecting an anesthetic or method, yet when anesthetizing for a surgeon we should select methods by which we can keep the patient in a satisfactory state for the best performance of the operation. We know that by this method many patients are kept unavoidably so near the border line that when certain organs are manipulated by the operator reflex movements are caused which necessitate crowding of the anesthetic. For this purpose usually chloroform is dropped on, an over-dose of which may be given, the first symptom being shallow respiration. If this is not recognized at once, and the inhaler removed, the respirations may continue to become more shallow until artificial

respiration and the administration of oxygen may be necessary to restore the paralyzed respiratory apparatus. This condition is sometimes not recognized soon enough by the inexperienced. It may even be doubted if the open method is the safest in the hands of any.

The phenomena of ether anesthesia depend upon the method of administration employed. Metzenbaum, of Cleveland, claims that by the open method only can true anesthesia be obtained; yet Hewitt claims that with the free supply of air admitted by the open method true anesthesia can be obtained only with great difficulty. Hewitt is right in his contention; the rebreathing constitutes a powerful factor in the process of anesthetization. All administrators must limit to some extent the amount of air admitted with the ether vapor in order to procure the proper degree of anesthesia for most major operations. By the open drop method, without any limitation of air, the amount of time lost and ether consumed are too much, while the bromide of ethyl, which should always be used as a preliminary, is wasted, since invariably the patient comes out from the ethyl anesthesia before he gets under the ether.

There is one complication following ether anesthesia that seems to me to be increased by the open drop method, namely, an excessive amount of albumin in the urine. During anesthesia by this method a much larger amount of ether is used, at least double that by the close system; and the vapor is a stronger, purer vapor, breathed directly into the system. The resulting irritation of the kidney is the cause of the albuminuria.

For four months I have been studying this question and expect to continue the investigation during the year. At the present time I think the open method of administration is the cause of the excessive albuminuria. I am unable to make this statement as a positive fact.

The inhaler which I have been using for the closed method is of my own devising, and is a combination for ethyl bromide, ether or chloroform. It is also arranged for the administration of oxygen during or after anesthesia. It can also be used with a bag attachment for the rebreathing of the expired air, as in the Clover inhaler.

W. Turner Wootin, in the *Journal American Medical Association*, April 27th, 1907, makes very strong claims for the administration of oxygen immediately following the withdrawal of the anesthetic, for the relief of the nausea and vomiting. Wootin's idea looks plausible. His idea is that ether and chloroform act as irritants to the vomiting center, either directly or reflexly from the stomach. He attributes this to the un-

changed ether, or to an alcohol radical when oxidation is incomplete, which still remains in the circulation after the reflexes return. He therefore proposes to oxidize the ether, by giving oxygen immediately following the withdrawal of the ether, and continuing until consciousness is regained.

DISCUSSION.

S. J. Goodman, of Columbus: We have before us two very capable gentlemen diametrically opposed in their methods, in their apparatus, and in their ideas, and yet both of them with equal success. Dr. Rice's success I know of, because I have seen it frequently, and Dr. Metzenbaum I know is equally successful. It seems that to be a specialist in anesthesia all one needs to do is to select a method of administration and a certain single drug and stick to it and argue for it. Now that is the particular and specific thing I would oppose above all things. There is no one drug which can be universally applied by anesthetists in all cases and at all times. The good anesthetist must be able to use any drug by any method or with any apparatus. The anesthetist for the Mayos, after reporting 14,000 cases of anesthesia, says that any patient who is a suitable subject for an operation is a suitable subject for anesthesia. Furthermore, I would like to add that it makes no difference how much learning a man has had, he has no business to give an anesthetic until he has been taught how to do so and knows his business from A to Z. Taking up the remarks of the two gentlemen in their order, I would like to say a word about instruction in anesthesia in colleges, and that is one of the most woefully criminal things we have to deal with today. The medical instruction in anesthetics in all colleges is almost a negligible quantity. I remember when I was teaching a minor branch in a medical college before I was fired, I endeavored to speak on anesthesia because of my experience in several thousand cases, and I was told by my superiors to mind my own business. I asked the boys how much they got of it in surgery, and they said it was only what there was in DaCosta's surgery. They don't teach them anything about anesthesia. They don't seem to appreciate the fact that the anesthetic is more dangerous than the operation. Take the nose and throat; how many of them call in a specialist to give an anesthetic? And any one knows it is ten times more dangerous to give an anesthetic than it is to take out a bunch of tonsils.

In speaking of the selection of drugs as anesthetics, I would say that the selection depends upon five or six main propositions. The first and foremost of all these is the ability of the anesthetist and his knowledge of anesthetics. It doesn't make any difference what is the safest anesthetic. If you are going down here to Bucktown, and find need for giving an anesthetic, whatever you are accustomed to give is the safest anesthetic. The second is the condition of the patient, next the character of the operation, then the age of the patient and the general conditions, and last and least the surgeon.

If I were going to give an anesthetic, and the surgeon agreed with me as to what the patient was to have, why I would give that anesthetic; if he

didn't agree with me I would give it. If that patient dies, the anesthetist gets the blame for it, and he is a "sucker" if he doesn't do what he thinks is the right thing. Now both of these gentlemen have condemned our old friend chloroform. I say any man who says chloroform is eternally and everlastingly damned, does not know how to give it. They start out and saturate their patients. Why you want to saturate them I don't know. You can keep a patient under anesthesia with two or three drachms of chloroform just as long as you want. I can give chloroform to anybody, no matter what the condition of the heart, kidneys or anything else may be; I can give chloroform just the same as the rest of the fellows will give ether. Ethyl bromide is the anesthetic par excellence as a preliminary anesthetic. Some of them were using ethyl chloride, then they started on anesthetol, which is absolutely fatal, and which is nothing but chloroform mixed—if they were to use pure chloroform they wouldn't kill them. Now, as to cooking chloroform up into sauce, that is all rot. If you give your chloroform right by the drop method, you don't need to warm it. Neither should you hold your mask away from your patient's face, bringing it gradually nearer and let them count. If an anesthetist will go into that room and cheer the patient up a little bit, and then start off with the preliminary anesthetic, a little bit at a time, and then turn on to chloroform, they will doze right off to sleep. Now, every gentleman speaking on anesthesia, speaks about how promptly they awaken. Now, why they want this I don't know, because if that patient can sleep, say three or four hours afterwards, they will get ease from the pain, it will keep their friends away, and you are putting the patient in the best possible condition to get well. It is a great advantage to keep them asleep.

Now, just a word or two more. Most of these gentlemen put on too much gauze over the mask. I say three thicknesses of gauze is enough. Why? If you put three thicknesses of gauze on you won't burn their faces, they will go under quicker, and they won't turn blue. In regard to the use of the closed drop or the open drop method, as advocated here, I swear I can't see where Dr. Rice gives any better anesthetic now than he did when he used the simple mask. Speaking of contra-indications, in the removal of tonsils and adenoids, the inhaler is in the way, and it is bad practice to give hypodermics, such as morphine and scopolamine. In obstetrics you don't want to use ether. In children, as a rule, chloroform must certainly be the anesthetic par excellence with ethyl bromide. In operations on the brain, we know, of course, now that we don't need an anesthetic, but if you use an anesthetic, for heaven's sake, use chloroform.

Dr. Lorimer, Chillicothe: In Dr. Goodman's remarks he emphasizes the importance of training in giving an anesthetic. I want to emphasize this, and yet he says that the anesthetist should give the anesthetic prescribed by the surgeon. I want to emphasize some experiences I have had with the use of chloroform. In the first place, the confidence of the patient is to be secured, and it is done by gently talking to the patient, and assuring him that there is no trouble ahead. The manner of giving the anesthetic is the second

point. Start it slowly and give it by the drop method. It is an awful mistake to pour the chloroform on. And then there is another thing, in regard to the use of this machinery. It simply complicates matters and yet the doctor would have us infer there is more to be added. We in the country will have to have a machinist or automobilist in order to make an apparatus for giving an anesthetic. Now, I would advise the doctor to stop where he is, or he will get us all balled up. Now I want to go back to one thing that has not been emphasized, and that is the care of the patient after the operation. I refer to the use of saline solution after the operation. I carry that out with all my patients.

Dr. Ricketts, Cincinnati: Dr. Rice speaks quite positively. I think possibly after a few years have been added to his experience he will have a little question of doubt occasionally on all things. He will then feel that there is nothing so uncertain as a dead sure thing. In regard to the use of chloroform there is an apparatus that has not been spoken of here this morning, and which I brought all the way from Cincinnati to show here, but left it at my hotel this morning. It is the Harcourt Regulator, gotten up by a British chemist in Oxford University. He is a gentleman who says, "show me." He has given us a working proposition for the administration of chloroform. You can use from one to two per cent. vapor, but not more than two per cent. There is no nausea following the administration of chloroform with this apparatus, if you will keep it adjusted to the face of the patient, as suggested by Dr. Goodman; there is no vomiting following its use, and in an operation lasting twenty minutes you use a teaspoonful of chloroform. There is no odor of chloroform in the room. (Dr. Ricketts here described the apparatus.)

I would rather have the family physician as my anesthetist. He has the confidence of the patient as no one else, and in letting him be your anesthetist, he assumes the responsibility of the operation—a thing that is not to be overlooked.

In regard to the apparatus presented here for consideration, I will say that it is less cumbersome than Iglauer's. An Iglauer's would take an automobile to carry it around from hospital to hospital, not to say anything about from house to house. As to the subject of anesthesia, it is of course old. I want to say that we have more than one anesthetic, but I do believe that any gentleman who prefers the use of ether, he should consider it, and study it, and stick to it from start to finish, and I do not believe that in its administration it should be intermixed with chloroform, because I think the combination is worse than ether or chloroform. I have seen patients die from ether bronchitis and ether pneumonia, but so far as my personal experience goes, I have never yet seen a patient die from chloroform pneumonia. I know that the drop method is an improvement over the old method of administration, and yet in Portsmouth, Ohio, where I had the honor of being in general practice for ten years, there was a man who gave chloroform year in and year out—the late distinguished J. B. Cotton, and when he gave it he poured it on freely. I mention this because Dr. Rice speaks

positively, and yet these men who did use it freely never had accidents under those circumstances.

Dr. Lawrence, of Columbus: I do not believe we have two papers of more real practical value than the two which have just been read. Speaking of anesthetics, I have used probably eight or ten different methods in my work. I went through the chloroform bias, in which I thought chloroform was the only thing to use. Then I took up the A. C. E. mixtures, until three or four deaths, in the hands of a man whom I considered very competent, coming close together made me somewhat suspicious, and then I went to ether. Then I used the Allison inhaler and, as Dr. Barnhill remembers, the Clover inhaler, in which the patients would get blue as with any other. For several years we have used the open method of ether when using ether, and the drop method as near as possible, and the open drop method when using chloroform. I believe what Dr. Goodman says is pretty near the truth. There is no one anesthetic for all cases, and there is a great deal more in the man giving the anesthetic than what is in the bottle. In reference to trusting the family physician who gives the anesthetic now and then or the resident hospital physician, I coincide with Dr. Ricketts; I would take the family physician under such circumstances rather than the graduated resident physician. But there is another suggestion to this question that is of the greatest importance, and that is that the operator may be able to give his absolutely undivided attention to the operation, and not to watching the anesthetist and the anesthesia he is using. I don't want to have any responsibility or worry with the anesthetist. That same thing offers another suggestion as to the argument of Dr. Goodman that he would not follow the surgeon's advice if he were giving an anesthetic. I think there should be a fair and just compromise. I want to say to you frankly that I am nervous and on edge from start to finish when chloroform is being used, and ten times more so if a man wants to use that abomination, A. C. E. mixture. And anestheticol is not much better. I don't feel very much more comfortable when there is a combination of any kind, but if Dr. Goodman, or Dr. Rice, or Dr. Metzenbaum were giving my anesthetic, I would want them to look my patient over and do what they thought best, and then I want them to assume the responsibility. We shouldn't think so much of what is given as an anesthetic as how it is given and by whom. Another thing that Dr. Goodman spoke of and which is too much lost sight of, and that is the psychic suggestion or psychic manner of the man who is to give the anesthetic. Recently I saw a physician walk to the bedside of a woman and ask: Mrs. Brown, have you ever taken an anesthetic before? I don't know of a more abominable question to ask your patient at that time. Make them think of all the advantages possible. Get rid of fright, which is a factor in shock. To start your patient in a condition of mental shock will give you trouble. So I suggest talk to them, get them away from the anesthetic and give it under suggestion, and the larger number of your patients you can get them almost in the stage of anesthesia before giving them a drop of anesthetic. Get them off in a perfectly placid condition, and they will come out

with much less shock. As far as the apparatus is concerned, I think that is a personal matter. I think that Dr. Rice could come out in the country house, ask for a napkin and extemporize an inhaler and give the anesthetic just as well as with the most costly apparatus made. The simpler everything we use, the simpler our methods in everything we do, the greater our control of them and the better the results we are bound to have. Wherever we simplify we are contributing to the safety and welfare of our patients as well as to the smoothness of our own work.

Now one thing has not been mentioned. I do believe we are in more danger from running out new fancies and new anesthetics. Dr. Metzenbaum, I believe, spoke of the difference between the surgical work itself today and a few years ago, and the fact that there was little difference in the mortality from the anesthetic. I would like to ask the gentlemen in closing the discussion whether they do not believe it is more due to the fact of trying out new things instead of carefully handling those things which we know something about. I believe that if we look back carefully over the history we will find that the introduction of the A. C. E. mixture immediately increased the deaths from the anesthetic. The same thing, I believe, you will find to be true of anesthetol. I may be mistaken. I believe if we stick to some of those things we know something about and the men will give their time and attention to it, it will be a God-send not only to the surgeon but to the patient. And I think the colleges should emphasize that it is absolutely essential for the students to obtain a knowledge as to the manner of giving an anesthetic, where you hold the patient between life and death, which is mighty more important than to tell them how to remove the appendix.

Dr. Ewing, Dayton: I would like to say just a word with regard to anesthesia, and that is this. I recently have had a case to die from ether nephritis that can only be ascribed to a man following the idea that ether is forever and always best and the safest and only anesthetic to be used. The patient was forty-three years old. She didn't take the anesthetic well. She took too much of it. It created a bronchorrhea and she was fifteen minutes going under it. The open drop method was used. While for the first twenty-four hours following operation she did tolerably well, during the second twenty-four hours she developed a nephritic condition and died from ether nephritis. The diagnosis was ether nephritis. We held a postmortem and made cultures from the wound and from the abdominal fluids, and there was no question but that it was an ether nephritis. We are going to come to the point where we will not always choose ether. It is a mistake in any man to give ether to a child or to the aged. Where there are no physiological or pathological contra-indications, ether is the anesthetic of choice, but to forget that chloroform is many times indicated is a great mistake. And it is also a mistake never to change to chloroform if you find your ether is doing badly, or vice versa. This one instance has led me to wonder if, in case a patient does not take ether well, it takes a large quantity to put them under, the bronchial mucous membrane is irritated—given a case of that kind, have we a right to believe that

in that case ether is going to be excessively irritating to the renal epithelium? Whether there is any connection there or not, I do not know, but it seems to me reasonable to suppose so.

Dr. Rardin, of Portsmouth: I have been delighted with the papers and discussions this morning. Not long ago a colleague of mine came to me with a felon on his forefinger, and he said to me: "Doctor, you don't know how that hurts." Any one who has had a felon knows something about it. I said to him you had better have a free incision there and have it opened. Yes, he said, but that is so painful; I can't stand it. Well, I said to him, let us do down to a dentist and you can take some nitrous oxide gas, which we did. I made a free incision in the finger and it got along very well. I tell you it makes a difference what end of the knife you are at. And, gentlemen, it makes quite a little difference who is at the other end of your patient. We are all put in the position of doing emergency work; maybe we are called out to some railroad siding or to some mill, and we find a fellow with a crushed limb or arm. We haven't time to transport a cylinder of oxygen or ether or a bundlesome apparatus; we want to relieve pain and save a life. We can't carry around with us an expensive apparatus. My friend Ricketts referred to my town, Portsmouth, a few moments ago, where I have been in practice for twenty years. He referred to Dr. Coffin, a man who has gone to his rest. I have seen that old doctor give chloroform many and many a time, and I have seen the patients do well. Another doctor has been giving chloroform for twenty years in that community, and I feel perfectly content when I know that he is at the other end, but I want to tell you, gentlemen, that the most discouraging, and the most nervous and trying piece of business is the surgeon at one end of the patient and the doctor at the other end who doesn't know a darn thing about chloroform or ether. I have never been put on the rack so much as to know a doctor was at the other end who didn't know anything about ether or chloroform. He will sit down on the stool, squirt tobacco juice across the room, and then put the inhaler about three yards away from the patient's face. I don't want anything to do with that man. I would sooner trust the man who comprehends the character of the anesthetic and uses a pocket handkerchief for its administration than I would to the man who uses this complicated apparatus, but knows not how to use it. Ten years after I had practiced medicine I attended clinics in the East and found they were using nothing but ether, ether, ether; the whole hospital was saturated with ether. I was doing some laboratory work there and noticed a great many specimens of urine coming out of the recovery wards of the hospital—they were examining the urine and some man had said that chloroform killed on the operating table, but ether killed in the lying room. My friend has already referred to one death from ether nephritis, and and it is a well known fact that many patients die after etherization who would have done well with chloroform. I believe that the open method of giving ether is a vast improvement over the old closed method—slapping in on their face and they were off in about three minutes. We have learned that is not the way to give ether.

I am truly glad I was present at these papers and discussions this morning, because it is a question of vast importance to us. We are operating all the time on all conditions. The closer we study what we are giving the better off we will be. I always get better results of this morning's session—Friday morning—than I do from any previous session, because the gallery playing is over with, and we get down to hard business in this session. I always enjoy them better.

Dr. Bonifield, Cincinnati: I rose first to show on record that I have been to the surgical section. There are two points in the discussion that I wish to speak of. One of the gentlemen who discussed the papers said that the anesthetist must absolutely decide what anesthetic to give. I beg leave to differ. I think this is a matter for consultation as any other subject in medicine. That would imply that the surgeon knows nothing except the mere operative technique. Now the majority of surgeons have been good practitioners before they became surgeons. Personally, I gave a few anesthetics for Dr. Remy before I ever used the knife, and I don't believe I would let any one dictate to me what anesthetic to give before I operated, but I would always defer to the anesthetist and his opinions on the subject. I have used chloroform with the Allison and with the Clover inhaler, I have used ether, A. C. E., ether and gas mixtures, and we come back to our old friend ether in ninety-five per cent. of all cases in the last three years. The remarks of the secretary were very sensible. There is no one anesthetic that answers all cases. We should change from ether to chloroform, and from chloroform to ether. The mixture of nitrous oxide and ether I absolutely passed up about three months after I commenced to use it. They get dark and don't clear up. Again, the only case I have had in four years with kidney complications was where the nitrous oxide and ether anesthesia had been used, and the patient remained blue during the entire operation. But I want to say further that I don't believe the statements Dr. Rardin made have been scientifically proven. It is often said that ether causes death after operation and chloroform don't, but I think there are a great many cases on record of a chronic chloroform as well as ether poisoning.

In regard to the drop method, now, gentlemen, I want to say that this is a fad, and very little more than a fad. I have witnessed anesthetics in New York, Philadelphia, Chicago and in that modern mecca, where they are supposed to do things better than anywhere else, and I want to say that I have seen some poor anesthetists in Rochester, Minnesota. And the people who use the drop method take a piece of gauze, put it through an ordinary chloroform frame, and then they fold that gauze all around the patient's face until there is just a little space through which the ether drops, and to all intents and purposes that is the same as the old Allison inhaler. It is vastly more important that we have an anesthetist who knows how to give ether, than some special way of giving it. All I want is good results; that the patient goes to sleep promptly; that the anesthesia is sufficient, that the patient never coughs, but at no time so perfectly as to be dangerous. I don't want the patient tossing up and

down like the ocean, for that is the most dangerous anesthetic.

Dr. Barnhill, Columbus: Only a few words on the very excellent papers and this very voluminous discussion. The president has brought out the two points I have in mind to speak of. In reference to local anesthesia, we can use this in a great many instances, and avoid the use of a general anesthetic. We must not forget that even the milder anesthetics are dangerous. We have had deaths in the last few years in this city from nitrous oxide gas, which is considered very safe. It only emphasizes the fact which has not been distinctly brought out, although alluded to by one of the speakers, and that is that we should study our patient and know what anesthetic to give. And we ought to do it without adding any new danger of scaring our patient. It is so common for young anesthetists to go up and listen to the heart and ask questions, which Dr. Lawrence has alluded to, which has a tendency to excite the patient and bring on shock. It seems to me every anesthetist should be a man of culture and good sense, at least, and the profession generally are coming to that. We ought, of course, to have specialists in the city, and of course we have them, but there are emergencies where we can't rely upon them. I am not decrying specialists on anesthesia.

In my student days it was customary for the chief surgeon to emphasize the danger of anesthesia. I think he did it so impressively—it was the elder Hamilton—that we all felt the gravity and dangers attending it, so that we administered it cautiously and did not bring about deaths from the most common causes. He emphasized the danger of giving ether to children and the aged, and to those with bronchial or kidney affections. Those things should be brought to the attention of students. This same surgeon frequently called upon the students to give an anesthetic, and it was in that schooling that I, at least, got my first knowledge of the administration of an anesthetic. A few years afterwards I had the pleasure of administering anesthetics for this and that surgeon, and later in a pretty large obstetrical practice I administered anesthetics frequently. I believe that ether, if properly administered, can be administered without very much excitement of the patient, and it is chiefly by the drop method, or rather the open method, and getting the confidence of the patient and administering it with his confidence. So the ease of administration has come about in that way, and I think this open method has been an evolution. But I believe with some of the speakers that it depends more upon the operator than the family physician.

Ed. Hamilton, of Columbus, referring to the case of Dr. Ewing, intimated that his case may have had a masked nephritis, and that the operation may have brought on a fatal issue. He also referred to the fact that chloroform diminishes blood pressure, and that it also causes shallow respiration, and that Cushing uses ether in brain surgery. He believes all the world over we are coming to the use of ether.

Dr. Kale: I have seen two cases of death from ether: not because I thought the patient died from the ether, but because the family physician gave the ether. I will tell you how one of them

happened. He had the old-fashioned inhaler, and he had this bound around with a strip of gauze, made a loop around the inhaler down into his mouth. The patient was under in about ten minutes; he died, and there were no symptoms of anything; the heart stopped and he was off; he was dead. The surgeon observed it first, and he remarked that the patient was dead, but the anesthetist was still pouring it on. The other cause was almost similar. He didn't have the gauze loop, but he poured too much on; he didn't know how to give it. Gentlemen, if you don't get into a hospital you escape without knowing anything about anesthetic. The man who gives the anesthetic ought to know something about it, and the surgeon who selects the family physician ought to know something about it.

Dr. Rice, closing discussion: There is so much I could say and would say if it wasn't getting so late and we are all getting so hungry. I can't say that I am inclined to give my anesthetic always, but I will say to a certain extent I do. I always consult the operator, ask him if he has any choice of anesthetic, and if it suits me I don't say a word about it. If it don't suit me, I may talk it over with him, but I don't go ahead and give any one anesthetic. And as Dr. Goodman said about giving one anesthetic all the time, I don't do it. I do say I give ether almost exclusively, and I do it because I think it is the safest anesthetic to give. I give chloroform and bromide of ethyl—bromide of ethyl to head operations alone. I gave bromide of ethyl at one time for forty-five minutes to complete a mastoid operation. The patient was nothing but skin and bones, but the operation was imperative. The patient woke up in her room nicely and she had no ill effects whatever, and she had no nausea or vomiting. I have never given anesthetic and I don't believe I ever will. But I think anything else I would give. I have given chloride of ethyl, but not like bromide of ethyl, which I think is safer for various reasons.

Somebody spoke about the apparatus being cumbersome. I can carry all my contrivance in that little grip, and the grip is not very large. I can carry my oxygen in it, but it is not always that I need the oxygen, except in the hospital where I am doing some experimental work. Dr. Bonifield spoke about the anesthetics given at Rochester, Minn. As stated in my paper, I don't believe any one will give it by the open drop method without limiting the amount of air they use. I like the open drop method, use it frequently, especially in kidney cases. Now, Dr. Ewing spoke of ether being hard on the kidneys. Well, chloroform, we all know, is hard on the kidneys; it is just as liable to cause nephritis as ether. And ether being so much safer in other respects, I see no reason why we should not give it in preference to chloroform. If the patient is not taking ether nicely, we can change to chloroform if we want. Dr. Goodman says chloroform is good in any case. I can't agree with him. I think chloroform is a dangerous thing to give, and I think it should be watched. I have never seen a death from chloroform as long as the heart keeps beating, no matter how black they got in the face and how long they stopped breath-

ing. The dusky appearance of the patient doesn't make much difference. There are strong hearted men whom you have to keep in that condition. If you don't keep them black in the face they will struggle. With regard to chloroform or ether in children. I don't see why you can't give ether to children. I have given it to a child twenty-four hours old, and I think it is better to give ether to children for this one reason. You give chloroform to a child that is not old enough to reason with, and it is bound to cry, and they will take deep inspirations, and if you are giving chloroform it is in the first stages of anesthesia that you have the most danger. In ether, you can crowd it without much danger, and they are asleep just as quick as with chloroform.

Now it doesn't make any difference what anesthetic you use; some patients will have kidney complications, and they will die no matter who is giving the anesthetic. I don't think, of course, that the family physician should give anesthetics for more reasons than one, but I have had operators tell me they have had the family physician to give the anesthetic to the patient for them, and they have had to work with the patient about ten minutes to get him to breathe. Now, that is a comfortable position for the operator. It seems to me the operator could afford to pay the anesthetist a pretty good fee to get rid of that worry. Dr. Lawrence spoke of the responsibility of the anesthetist, and I was glad to hear him speak the way he did. The first symptom of danger with chloroform is shallow breathing, that is, in most instances. If you get this you had better take off your mask then and stop entirely. I have done it myself. I know such is the fact. Dr. Ricketts spoke of the country doctor. My understanding of the Iglauer inhaler is that it isn't so very cumbersome. I haven't seen any more than the picture description of it. I never have yet, that I can recall in nearly five years continuous administration of anesthetics, seen pneumonia or bronchitis following the use of ether or any other anesthetic I have given. I believe carelessness in the care of your patient, taking him to and from the operating room, exposing him to drafts of air, will give them pneumonia and bronchitis more than the ether. Somebody spoke of giving injections of scopolamine and morphine to children. I tell you I have given anesthetics for Dr. Goodman and others. I gave a short anesthetic for Dr. Goodman, and it was a short one I thought, and the mucus rolled out of the mouth so thick you could pull it with your hands. I think children should have a proportionate dose of scopolamine and morphine.

CYSTIC TUMORS OF THE PANCREAS

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Pancreatic cysts are usually divided into six varieties:

(1) Retention cysts; (2) proliferation cysts, including adenoma and epithelioma; (3) hydatid cysts; (4) congenital cysts; (5) hemorrhagic cysts; (6) pseudo-cysts.

1. Retention cysts vary in size from those so minute as to be discovered only at postmortem (these including the "rosary" dilatations described by Virchow, and the pancreatic "acne" of Klebs) to the large cysts encountered by the surgeon. Sometimes the entire duct may be distended, producing the condition which Virchow called "ranula" of the pancreas.

2. Proliferation cysts are comparatively rare and are frequently malignant, the course of the disease after operation sometimes being necessary to determine just the character.

3. Hydatid cysts are extremely rare, as are also (4) the congenital cysts.

5. Hemorrhagic cysts are of two kinds—those in which hemorrhage occurs into the substance of the pancreas either as the result of traumatism or some inflammatory action, and those in which hemorrhage occurs into a pre-existing cyst.

6. Pseudo-cysts is a name first applied by Korts to fluid tumors found in close proximity to the pancreas, but not springing from the glandular substance itself. The walls of these cysts consist of the boundaries, in whole or in part, of the lesser peritoneal cavity, the foramen of Winslow being closed by inflammatory action. As these cysts frequently originate from an injury to the gland, and as their contents thus contain glandular secretions, it is practically impossible in many of them to differentiate the true from the false, and really differentiation is of no special importance. Ordinarily these cysts correspond in shape to the boundaries of the lesser peritoneal cavity, and their diagnosis and character are then easily determined.

Pancreatic cysts are rather more common in men than in women, this difference probably being due to the fact that traumatism is such a frequent etiological factor. The difference, however, is not marked.

The youngest recorded case occurred at thirteen months; the oldest at seventy-six years.

Any part of the gland may be affected. The cysts are usually single and unilocular, but may be multiple and multilocular. The inner surface is usually smooth and lined with cylindrical epithelium, but incomplete septa may be present.

RARITY.

Robson and Cumming, in their work on the pancreas, issued in 1907, record 160 cases of operation for pancreatic cysts. The literature on the subject had been carefully searched, duplicate reports eliminated, and this number carefully substantiated. To this number they add thirteen cases of their own. This shows the comparative rarity of the disease.

ETIOLOGY.

Not much is known about the etiology of these cysts except that they are probably due to some form of obstruction, the result of traumatism, of acute or chronic pancreatitis, or, in rare instances, of the formation of pancreatic calculi.

CONTENTS.

The contents of these tumors may resemble water, or the fluid may be thick and slimy, or almost gelatinous. Usually the contents are light brown in color, or coffee brown, or almost black, the difference in color depending upon the amount of blood present. In some cases the color may be yellowish green, this being due probably to some mixture with bile. The specific gravity is usually low, 1010 to 1020, but one case has been reported in which it was 1160. Albumin is always present. Cholesterol is frequently found and also urea. Microscopically, blood cells are usually present, with epithelial cells, fat globules and crystals of cholesterol. The most important characteristic is the possession of digestive powers by the contained fluid. The presence of a starch-converting ferment is the most important element in diagnosis, but no one diagnostic point is of positive value.

DIAGNOSIS.

The symptoms in the early stage are not pronounced. They are usually those of indigestion or of neuralgia. The patient may complain of fullness and nausea. If the tumor is near the head of the pancreas, jaundice may be present from pressure upon the bile duct. Later more or less prostration may follow, with pronounced loss of flesh. If the pancreatic involvement is sufficiently extensive, there will be fatty stools and glycosuria, but such extensive involvement is exceedingly rare. The first marked symptom, however, is the presence of a tumor. This tumor usually pushes forward in one of three general directions. (1) In the great majority of cases

(said to be 95 per cent.) the tumor pushes directly forward, crowding the stomach up and the transverse colon down. If the tumor is large, there is thus great displacement of these viscera, the colon being pushed as far down as the symphysis. (2) Next in frequency the tumor presents above the stomach, pushing forward between it and the liver. (3) In rare cases, the cyst, springing probably from the lower border of the pancreas, pushes forward between the layers of the transverse meso-colon, so that the colon is found passing directly across its surface, or, if it develops more at the expense of the lower peritoneal layer, the tumor may crowd downward below the transverse colon, pushing the small intestines down and thus simulating very closely an ovarian tumor. These three directions are all that are mentioned by most authors. Robson and Cummidge, however, speak of cystic tumors pushing forward to the right so as to simulate a gall bladder or a cyst of the right kidney or of its capsule. In such cases the cyst springs from the extreme end of the head of the pancreas. If the tumor springs from the posterior portion of the head, or the posterior portion of the tail, it will project into one or the other lumbar region and thus resemble a tumor of the kidney. They mention the possibility (but refer to no recorded case), of a tumor arising from the uncinate process to the left of the mesenteric vessels, burrowing forward between the layers of the mesentery so as to simulate closely a mesenteric cyst. They refer to one case in which a thin walled cyst, springing from the head of the pancreas, so far developed at the expense of the lower layer of the transverse meso-colon as to present the physical signs of ascites. It is more probable, however, that in this case the tumor was a false cyst and the contents merely separated the layers of the great omentum so as to thus simulate ascites. As such an accumulation, however, would necessarily override the transverse colon, a careful study of colonic tympany should have caused a suspicion to arise of the true condition.

In the diagnosis of these tumors study of colonic tympany is all important. It will usually be necessary to inflate the colon for this purpose by pumping air into the rectum. When the colon is once inflated, its relationship to the tumor can be readily determined, and this relationship will, in the infinite majority of cases at least, enable the diagnosis to be very positively determined.

TREATMENT.

The operative treatment consists in (1) tapping, which is universally condemned; (2) enu-

cleation, which gives such a large mortality as to preclude its adoption in all but exceptional cases, and (3) free drainage, or marsupialization.

In operating the incision should be made over the most prominent point of the tumor. As the stomach will frequently be found directly under the line of incision, care should be exercised in the opening of the peritoneal cavity. If the tumor is above the stomach, it would be drained at this point; if it presents in the usual position between the stomach and colon, the stomach should be pushed up out of the way, the omentum torn through at the point where there are no blood vessels, and by thus working down the cyst exposed. The peritoneal cavity should then be protected by sponges, the tumor tapped by a fair sized trocar and its contents largely withdrawn. The tumor can then be brought to the surface, the opening enlarged, the remainder of the contents removed, the cavity explored with the fingers and the edges of the opening in the cyst attached to the peritoneum and transversalis fascia, or to the muscle or external fascia, as the surgeon prefers. They should not be united to the skin. Tubular drainage should then be introduced and the cavity packed in part with gauze. The gauze should be changed at intervals and finally omitted, but the tubular drainage should be kept up until the tumor has been reduced to practically a mere sinus. I have never yet resorted to washing out of the sac, but this might in some cases be desirable. Obliteration of the sac is usually a rather slow process, and in some of the cases that have been reported has required many months. The discharge, however, in these chronic cases is slight and produces very little annoyance.

RESULTS.

Of the 160 cases reported by Robson and Cummidge death is recorded as the result of operation in twenty cases. In 138 cases, with drainage, the mortality was 11.6 per cent. In fifteen cases in which excision was practiced the mortality was 20 per cent. In their own thirteen cases one cyst only was enucleated, with recovery. Drainage was resorted to in ten cases, with one death (10 per cent.). Two of the cases were pseudocysts, one due to traumatic hemorrhagic pancreatitis and the other to necrotic pancreatitis, with one death.

In nine of my cases such examinations were made of the cysts themselves or of their contents as to leave no doubt as to their being true pancreatic cysts.

Trauma was clearly the exciting cause of the tumor in cases 2 and 6, but in none of the others could any cause be assigned.

I have operated on three cases of acute hemorrhagic pancreatitis, and as these presented a cystic formation (pseudo-cysts) I have, following the lead of Robson and Cummidge, included them in the series, making twelve in all and thus bringing the recorded total to 185.

Had the first of these hemorrhagic cases been operated upon earlier, it is possible that the necrotic process might have been limited and life saved. Prompt operation in the other two cases was clearly life saving. The case of Dr. Green is almost or quite unique in the history of hemorrhagic pancreatitis, in that there was sloughing of such large amounts of pancreatic tissue with ultimate recovery.

Case 1.—Mrs. D., aged thirty-seven, patient of Dr. Graham, Marseilles, Ohio. Operation September 19, 1901. Had had soreness in her left side for about two years, but first noticed a tumor on March 17, 1901. This tumor had been slowly growing in size. Had lost about fifty pounds in weight. No dropsy. Thought there was considerable diminution in the amount of urine passed during the early weeks after she noticed the tumor.

On examination a tumor about the size of an adult head was found in the region of the left kidney. The colon could be made out distinctly on the outside of the tumor, and general abdominal tympany below it. Could not be positive about the stomach being above it. It clearly had no connection with the pelvis. Was clearly cystic and somewhat movable from side to side. About one-third of its bulk seemed to be to the right of the median line. Somewhat tender. Owing to the history of the partial suppression of urine, the presumption was that the tumor might be of the kidney, especially as examination of her urine showed it to contain some pus, with albumin and debris, though examination of the urine on the morning of the operation showed no abnormal elements.

Examination when patient was under the anesthetic showed colonic tympany on the outside of the tumor and stomach tympany below it. This condition seemed to indicate that the tumor was of the pancreas rather than of the kidney.

Incision was made just to the left of the median line. The stomach was found in front of the tumor, its lower border being about at the level of the umbilicus. On lifting up the omentum, the veins of which were enormously distended, the tumor was found retro-peritoneal, as expected. Both kidneys found normal. The great curvature of the stomach passed below the most prominent point of the tumor. Forty-five ounces of fluid, thin and somewhat dark colored,

removed through a trocar. The opening was enlarged and the rest of the contents absorbed with sponges, two pancreatic stones being removed in this way. The edges of the opening in the tumor were then attached to the abdominal incision in the usual way with chromicised catgut. As the uterus had been found retroverted, with the usual symptoms of that condition, it was brought forward before closing the incision, and suspension made through this opening, but with considerable difficulty. Incision then closed as usual. Patient made an excellent recovery.

Case 2.—Mr. C.; physicians, Drs. Moore and Vorhies, Cambridge, O. Operation October 4, 1902. Aged twenty-one. About two months before patient fell, striking his abdomen on the end of a heavy iron spindle, this end being about eight inches in diameter. The injury was followed by severe pain in the abdomen, a bruise the size of the end of the spindle being clearly distinguishable on the abdomen. Some peritonitis developed. A tumor developing, an incision was made over the most prominent part of the tumor, through which was removed some coagulated blood and serum. This blood, the doctor said, was between the stomach and the liver. Patient was more comfortable, but after awhile the tumor again became prominent. Since that time his condition had been steadily growing worse. Some elevation of temperature, with tendency to vomiting.

Personal examination showed the abdomen distended in its upper portion by a distinct tumor. This tumor was apparently cystic and with well marked borders. It extended about three inches below the navel and about four inches to the right of the median line. The transverse colon was below the lower border of the tumor. The stomach could be readily made out above it. The diagnosis seemed to rest between a cyst of the pancreas and a cyst of the lesser peritoneum. As the patient's condition was rapidly growing worse an immediate operation was advised.

Made an incision through the old scar. In closing this incision the transversalis fascia and peritoneum had not been included, so that the stomach was found directly adherent in the line of the wound. In separating it, its anterior wall was opened so that the finger could be passed into the stomach. With this as a guide, extensive adhesions were separated, and the opening in the stomach closed with fine silk. It gave no further trouble. As the omentum and the adjacent parts were quite extensively adherent, an opening was made directly through the omentum down to the cyst and a trocar passed, giving exit to a large amount of opalescent fluid. What

fluid remained was then sponged out, between one and two gallons being present, and the edges of the opening attached to the incision. Patches of fat necrosis were found quite extensively scattered over the field of operation. Patient made an excellent recovery.

In December, 1905, this patient returned, suffering evidently from intestinal adhesions from the drainage of the cyst. The abdomen was again opened on the 20th of that month, extensive adhesions separated, raw surfaces overcast, a part of the omentum removed, and the appendix inverted. From this he made a rapid recovery.

Case 3.—Mrs. U.; physician, Dr. Taylor, Marion, Ohio. Aged twenty. Operation September 10, 1904. Patient had had an acute attack of stomach trouble in the preceding March. This was attended with pain and vomiting. She noticed a lump in the upper abdomen in April, and this tumor had been growing in size right along. Was somewhat tender.

Examination showed a tumor in the upper abdomen about the size of a child's head, this tumor crowding forward between the transverse colon and the stomach. Descended some during deep inspiration. Growth was symmetrical, entirely smooth in outline and elastic. Diagnosis of pancreatic cyst very evident.

Incision was made to the left of the median line over the most prominent point of the tumor. The stomach was lifted up, the omentum opened and the walls of the cyst found quite thick. Two quarts of thin, rather dark straw colored fluid were removed by tapping, and the cyst attached as usual to the incision. Made an attempt to enucleate the cyst, but it was soon evident that hemorrhage would be excessive, and this was given up. The walls of the sac seemed to be about a quarter of an inch thick. Patient made an uneventful recovery and later was reported as being pregnant with a second child and passing safely through her pregnancy.

Case 4.—Mr. C., aged twenty-five; physician, Dr. Moore, Cambridge, Ohio. March 10, 1906. This patient was operated upon for cystic tumor of the pancreas October 4, 1902. (See Case 2.) For about two months patient had noticed a lump in the region of the former tumor. Had had no chills nor fever nor any special trouble.

Examination showed a tumor corresponding to the upper end of the old scar. The tumor was evidently deep seated. Dissected down carefully a little to one side of the original wound, as the tumor seemed to be most prominent at this point. The tissues were separated with great care and the tumor exposed. It was tapped and exit given

to some dark colored fluid. Examination of the cyst showed the walls to be thick and the tumor to be about the size of a baseball. The walls were smooth, and the cyst apparently very symmetrical. As the walls could not be brought into the incision, a drainage tube wrapped with gauze was introduced. This tumor was above the lesser curvature of the stomach and was opened and drained at this point instead of below the stomach, as was the first cyst. Prompt recovery.

Case 5.—Mrs. S.; physician, Dr. Wilson, Jeffersonville, Ohio. Aged forty-one. Operation October 10, 1906. Patient had noticed a lump in her left side the previous February, this being about the size of a teacup. It had increased steadily in size and was now about as large as an adult head. No loss of flesh.

On examination found the patient an unusually healthy looking woman, rather fleshy. To the left of the median line, just below the margin of the ribs, was a rounded tumor, feeling much like a fibroid, but indistinctly elastic. The tumor could be pushed somewhat from side to side and slightly up and down. Could feel it fairly distinctly through the back. Colonic tympany readily made out to the left of the tumor and apparently passing below it.

Incision made in the median line. The tumor found presenting between stomach and transverse colon. With the trocar removed a quantity of moderately thick fluid, light colored and slightly tenacious. Attached the edges of the cyst to the wound as usual. The discharge continued for several weeks, after which recovery was complete.

Case 6.—Mr. McD.; physician, Dr. Thomas, Columbus, Ohio. Aged forty-two. Operation February 19, 1907. Patient, who was a railway clerk, was injured in a collision in July of the previous year. Continued his work until the following December, at which time he had an attack of entero-colitis. After this he complained of some pain in the left side of the abdomen, with some disturbance of the bowels. A tumor appeared at this time, which was diagnosed by the physician who was then attending him as an enlargement of the spleen. At the time when his present attendant took charge there was distinct pain and tenderness in the region of the spleen and some enlargement at that point; slight elevation of temperature; a little yellowness of the eyes, but no distinct jaundice. Seemed to get a little better, but had not been able to do any work since the first of the year. Had been confined to his bed for a few days.

On examination could make out nothing more

than a rounded tumor in the left side of the abdomen. Inflation of the colon showed this tumor to be above the transverse colon. This would clearly exclude the spleen and practically settle the diagnosis of cyst of the pancreas. No special tenderness.

Incision made well over to the left. Pushed up the stomach, which was under the incision, and then opened directly down to the tumor, the tumor tapped and exit given to a considerable amount of dark fluid. The tumor was then stitched to the incision and drainage introduced as usual.

Patient stood the operation nicely, but within an hour or two after his return to bed his pulse became exceedingly rapid and feeble. Examination showed the formation of a heart clot, and death occurred about five hours after operation.

At the autopsy death was found to be due to heart clot, as anticipated, but, in addition, and as perhaps more directly responsible for the formation of the heart clot, there was found a sarcoma involving the mediastinum, so that death was only very indirectly the result of the operation.

Case 7.—Mr. M.; physician, Dr. Schueller, Columbus, Ohio. Aged thirty-six. Operation February 27, 1907. Had been ill for about two years and a half, having lost about sixty pounds in weight during that time. Had been first taken with pain in the stomach, which had been regarded as neuralgic. These attacks would come on at intervals of about a month and were always relieved by morphine. Pain had usually been noticed in the left side of the abdomen, well around in the back and running down to the testicle, which seemed to be hyperesthetic. Temperature slightly above normal. Slightly chilly at times.

On examination found a tumor about the size of a child's head in the region of the left kidney. It was impossible to determine whether it was a tumor of the kidney or of the tail of the pancreas. Patient was advised to enter the hospital for a thorough examination, which he did. When in the hospital the urine was carefully examined and found to be normal. The tumor was then examined under an anesthetic, with inflation of the colon. Even then, however, owing to its location, no positive differential diagnosis was possible, especially as the nurse reported some blood in his urine the morning of the operation. Diagnosis seemed to rest between sarcoma of the kidney and cyst of the tail of the pancreas.

Made a short incision through the left rectus muscle. A cyst was found presenting, which was carefully exposed and opened, exit being given to a considerable amount of dark fluid. The finger

being introduced, the cyst was found extending far over to the left and back. As the cyst seemed to be so distinctly pointing toward the back, an incision was made at this point and gauze introduced through the cyst and brought out in the back. The opening into the cyst in front was then closed by inversion of the edges and the passage of through and through silk-worm gut through the inverted edges and the edges of the incision itself. Drainage was continued through the back and the cyst was entirely obliterated in the course of a few weeks.

Case 8.—Mrs. S.; physician, Dr. Wilson, Jeffersonville, Ohio. Operation March 5, 1908. This is the same patient whose case was described as No. 5. She returned March 4, 1907, presenting a tumor in the left side, which could be readily felt not only from the front but also from the back. This tumor had been increasing in size quite steadily.

On examination could make out what seemed to be clearly a cystic tumor of the tail of the pancreas. This tumor was opened by an incision in the back just below the twelfth rib. A large trocar was introduced and exit given to a considerable amount of thick fluid, somewhat opalescent and odorless. The edges of the opening were caught to the muscles on each side and drainage introduced. The cyst continued to discharge for several months, but finally the discharge ceased and recovery seemed to be complete.

Patient returned March 30, 1908, on account of the development of a hernia at the site of the original operation. This hernia was operated upon in the usual way, with careful overlapping of the fascia. In separating the tissues a cyst was opened about the size of the thumb and containing some clear fluid. This cyst seemed to have formed in the sinus leading into the original cyst and to the surface. The cyst was thoroughly carbolized so as to destroy its lining and closed without drainage. At this time the entire pancreas was carefully examined and could find no evidence of any further trouble. Prompt recovery.

Case 9.—Mrs. K.; physician, Dr. Schueller, Columbus, Ohio. Aged forty-nine. Operation February 28, 1908. Patient had been having abdominal trouble since last July. Food somewhat undigested. Lost fifteen pounds in weight. Occasional attacks of nausea, but no vomiting. Had noticed a lump in the left side for some time, the character of which had not been determined.

On examination found a tumor just below the border of the ribs on the left side, descending

during deep inspiration. Seemed to be somewhat elongated, running over toward the false ribs. Extended a little beyond the median line to right. Smooth in outline; slightly elastic. Colonic tympany below; stomach tympany above. Diagnosis of cyst of the pancreas seemed to be clear, though the possibility of its being connected with the stomach had to be considered.

When patient was under the anesthetic a more careful examination which was possible seemed to clearly establish the pancreatic origin of the tumor. Incision two inches to the left of the median line. Tumor directly under the incision. The omentum was torn through and with a trocar exit given to over a quart of fluid somewhat resembling bean soup. The edges of the tumor were attached to the incision as usual. Examination of the sac showed the cyst to run out to the left clear to the tail of the pancreas. Drainage was introduced as usual, and the patient left the hospital in a few weeks in good condition, but with some discharge from the fistula.

Case 10.—Mr. E.; physician, Dr. Crawford, Glouster, Ohio. Aged fifty-nine. Operation March 28, 1903. Patient had had good health previous to the present attack, except for a number of irregular attacks of indigestion. One week before I saw him he was seized with severe pain in the epigastrium, for which morphine was given, but with only partial success. This was followed by frequent attacks of vomiting, with the expulsion of a good deal of bile. Had not vomited for three days. Great abdominal distension followed the attack and obstinate constipation. The distension had been subsiding for two or three days, but other symptoms no better. Patient constantly under opiates. Temperature 99° to 102°. Pulse rate reached 140. Respiration labored as in peritonitis. Heart's action weak from the start.

When I reached the patient's bedside his abdomen was about normal in general appearance. No particular tenderness at any point except the epigastrium. Here a distinct tumor presented. It was about the size of a small fetal head, the transverse colon below it, the stomach above. The upper border of the tumor quite distinct; the lower border less pronounced. Very tender. Deep fluctuation seemed to be present. The greatest prominence a little to the right of the median line, just under the edge of the liver. This location seemed to indicate its connection with the gall bladder and head of the pancreas. Owing to the rarity of pancreatic disease, the presumption was in favor of an acute chole-

cystitis, with local peritonitis, and perhaps gangrene. No positive diagnosis made, but operation advised. Patient was at once removed to the hospital. The incision was made over the most prominent part of the tumor, this being about an inch and a half to the right of the median line. The abdomen being opened, the tissues beneath presented numerous points of fat necrosis. The tumor was then found to be to the left of the gall bladder and to crowd the pylorus upward and forward. The trouble was clearly connected with the pancreas. The field having been protected by gauze sponges, the omentum was opened and the finger introduced between the stomach and transverse colon. Exit was at once given to much foul smelling fluid containing pus. The head of the pancreas was found to be necrotic, and a piece of this necrotic tissue was readily removed with the finger. The cavity was then carefully wiped out and tube drainage with gauze introduced.

Patient rallied nicely from the operation. He still had some pain in paroxysms, but nothing serious. Took and retained a fair amount of nourishment. Bowels opened nicely. Temperature reached 103° immediately after the operation, but at once dropped to normal. Patient remained, however, greatly prostrated, becoming gradually weaker, and died at 8 a. m., March 31.

Autopsy showed entire absence of peritonitis, but the pancreas from end to end was gangrenous. Extensive fat necrosis. No gall stones present.

Case 11.—Dr. G., Columbus, Ohio; aged fifty-two. Operation December 7, 1903. Patient had been subject for several years to occasional attacks of indigestion, but had had special trouble since the previous August. Symptoms of stomach trouble had been quite persistent since that date. During these attacks would vomit quite freely and eructate a good deal of gas. Pain referred to the pit of the stomach and the right shoulder. No jaundice. Five days before had been seized with an unusually severe attack, requiring the free administration of morphine for relief. Temperature about 100°; pulse 100. Bowels were well opened on the third day, but with very slight relief. Patient had an offensive breath; tongue quite coated; very tender over the entire abdomen, but most tender at the pit of the stomach and a little to the right of the median line. The history of the case seemed to indicate an old gall bladder trouble with acute exacerbation, and a little delay seemed to be indicated. There seemed to be a fullness at the point of marked tenderness, but no positive diag-

nosis of tumor was possible. As his condition was steadily growing worse, operative intervention was found necessary.

At the time of the operation the tumor, which had been previously suspected, was quite distinctly identified. Abdomen opened as usual. Gall bladder found to contain a number of gall stones. The tumor was below this and to the left and had no direct connection with the liver. The incision being enlarged, fat necrosis was at once apparent, indicating that the trouble was in the pancreas. More careful examination showed the tumor to be made up of thickened omentum, with a good deal of fat necrosis, and a mass below this involving the head of the pancreas. The lesser peritoneal cavity was opened as usual. Considerable offensive fluid was wiped out and tube drainage with gauze introduced. The gall bladder was then opened and a large number of gall stones removed, with the introduction of ordinary tube drainage. The gall bladder contained in addition to the stones a considerable amount of thick bile-stained mucus. The pancreas itself was found markedly swollen and black, clearly the seat of hemorrhagic inflammation.

Patient made a slow but very satisfactory convalescence. On January 23 I removed four pieces of tissue from the line of drainage, examination of which by the microscope showed them to be pieces of pancreas. For several weeks he continued to discharge similar pieces, until it was estimated that about half of an ordinary pancreas had sloughed away. After this the sinus rapidly closed, and the doctor was restored to complete health and is now engaged in the active practice of his profession and enjoying better health than for many years previous.

Case 12.—Mrs. B.; physician, Dr. Welker, Gambier, Ohio. Aged fifty-eight. Operation March 11, 1907. Patient had for years had colicky pains most pronounced in the right side of the abdomen and pit of the stomach. Five weeks before had had an attack of what was supposed to be grip. The doctor saw her once or twice, and then, as she seemed to be convalescent, directed her to report. March 8 he was called and found that she had suddenly commenced complaining of severe abdominal pain, with persistent vomiting. Her condition at this time seemed to be quite serious, apparently from acute obstruction of the bowels. Pulse about 80. Highest temperature 101°. Abdomen distended and tender throughout.

On personal examination could elicit quite typical tenderness over the gall bladder, this tender-

ness extending somewhat downward. Had not vomited for several hours. Pulse 94; temperature 101.8°. The diagnosis was in doubt except as indicating that the origin of the trouble was probably in the gall bladder. As her condition was getting worse, immediate operation was advised, and the patient at once brought to the hospital and operated upon as soon as the abdomen could be prepared.

Made the usual gall bladder incision. Abdominal walls very thick with fat. As soon as the peritoneum was opened there was a gush of bloody fluid, and the omentum, studded with points of fat necrosis, at once appeared in the incision. The incision was extended down somewhat, and a large amount of bloody fluid removed from the abdomen. The gall bladder was found moderately distended, with greatly thickened walls, and with a single gall stone, about the size of a buckshot, impacted in the cystic duct. Gall bladder removed in the usual way. The lesser peritoneal cavity was then opened between the transverse colon and stomach. Pancreas found swollen and very edematous. Very dark in color. Some thick fluid and broken down tissue were sponged out of this cavity, and then rubber drainage tube with gauze introduced. Patient directed to be placed in bed, lying on her right side.

The discharge from the region of the pancreas was quite free for several days, but then diminished, and recovery was absolutely uneventful.

DISCUSSION.

Dr. Hall, of Cincinnati: The paper of Dr. Baldwin is an exceedingly interesting one and the subject is an interesting one, especially to the operator. From the title of the Doctor's paper, I assumed that he was going to deal only with the subject of large cysts of the pancreas, but I observe that he has covered the entire field, and, very thoroughly, for which I am thankful. The Doctor has gone over the literature so thoroughly, and brought everything up to date, that it leaves the subject very narrow for discussion. But there are two or three points to me that appeal to one that are more important than some of the others from a clinical standpoint. First, while acute hemorrhagic pancreatitis is very much more frequently met with than the large cysts requiring drainage, or from the size of the tumor (that of a foetal head), yet the two conditions ought to be classified from a clinical standpoint and from an operative standpoint. Every operator realizes that occasionally he operates on acute gall-bladder trouble, for instance, and finds an acute pancreatitis, and I have met with that condition myself, and I was asked, when visiting in New York a year or so ago, to be present at an emergency operation for gall-bladder trouble, and upon opening the abdomen the surgeon found it was a case of acute

pancreatitis. Now, it is not possible to differentiate and make a diagnosis of acute hemorrhagic pancreatitis from a number of other conditions in the abdomen, and the mortality in this class of cases must necessarily be very much higher than where there is a cyst formation, so you can deal with it by drainage, as suggested by the Doctor. The differential diagnosis, when there is cyst formation, is not always easy. The Doctor has gone over the ground and pointed out the great advantage and clinical importance of locating the colon. I think this gives us more aid than almost any, or all, of the other symptoms combined. If you can locate the colon—if it is to the front or behind the tumor, to the right or to the left of the tumor—it gives you a good point in your differentiation. Some of these conditions of tumor have been mistaken for an ovarian tumor, because of the large size of the tumor, and the diagnosis, if made at all, is made after the abdomen is opened. The location of the tumor—its relation to the different viscera has been gone over very carefully, and we all agree as to that.

Now, as to the etiological factor entering into these cases—the causation of the large cystic tumors—the question of calculi in the duct must always be taken into consideration, and it is probably true that some of these cases are due to obstruction of the duct by calculi, and yet it would be difficult to prove it positively, unless you happened to find a calculus during the operation, or unless the case came to autopsy and you happened to find the calculi. The role played by trauma is a very important one. A large number of these patients give a history that we must take into account—the injury and the inflammation following—as the probable cause of the cystic formation. The tumor coming so soon after the injury—and the whole period from the time of injury until the patient comes to operation is often only a few weeks. Yet there are instances where it is believed it is due to trauma and where the tumor comes on months afterwards; and in the literature we find one or two cases where it was assumed to have come on years afterwards. Now from a clinical standpoint it must not be overlooked that many of the older writers have treated the subject of true cyst and pseudo-cyst of the pancreas as one subject—as one pathological condition. I think that ought not to be. A true cyst of the pancreas—where the cyst develops in the pancreas itself, plus the inflammation following the trauma; plus the pancreatic tissue cyst formation, which is increased by occasional or frequent hemorrhages into the cyst cavity—that should be designated as a true cyst of the pancreas. The pseudo-cyst—that of a sacculated condition of the lesser peritoneal cavity by closure of the foramen of Winslow is an entirely different condition. The treatment is different. In the first instance you must stitch the cyst to the abdominal wall, and it is a very much more serious operation to the patient, and there must necessarily be a higher mortality following the operation than in the pseudo-cyst, where you must only tap and drain, and there is very much less injury done to the patient. There has been a high mortality following these operations, and one would say justly so. Most,

or all of these cases, come to operation in an extreme degree of exhaustion, and my experience has been that in dealing with patients almost dead those are the ones you are likely to get a few funerals from in dealing with them, and I think that experience leads one to know that the mortality following acute pancreatitis operations is very much greater than those operations for cystic formation.

I cannot add anything to the manner suggested by the doctor in his technic for operation. I think that is a recognized method of treating these cases, and one must follow out the line of drainage, and protecting the patient's powers of resistance as much as possible following the operation. The case reported where the patient died of heart-clot, we can account for that, inasmuch as malignant disease was present. No one must overlook the fact that sometimes in acute pancreatitis you have present malignant disease at the head of the pancreas. Now that plays a role. Perhaps the patient had malignant disease months before, and the acute pancreatitis followed as a climax in the disease. I have operated on one or two patients that had malignant disease at the head of the pancreas, as proved by autopsy afterwards, and whether or not that was the primary disease must be considered. I think that this whole subject is becoming more and better understood in the last eight or ten years. Prior to that time it was in the dark ages so far as understanding conditions as compared with the present time. Nearly all of the recent work has been thoroughly and carefully reported, and while the older cases were autopsy and not operating room findings, the more recent work shows largely operating room findings and not so much autopsy findings.

Dr. Gilliam: I was not so fortunate as to hear Dr. Baldwin's paper. I am very sorry for I think it must have been very thorough and instructive. There are one or two points I want to call attention to. Probably it may not be relative to the subject as discussed by Dr. Baldwin, but it is impressing itself upon me more and more all the time, and that is we are finding so much more trouble with the pancreas than formerly. It is responsible for a great many troubles that heretofore have been referred to other organs, especially to the gallbladder. We might take the people of this audience and open them up and find a large proportion of them had stones, whether they had symptoms or not. But some of them we open up for stones but do not find them, and upon further examination we find they have pancreatic trouble. And these cases require a great deal more attention, but unfortunately they are not very easily diagnosed, unless we follow up the chemical examination of Canning, which is very technical. I believe it is claimed that the common duct runs through the pancreas in about 60 per cent. of cases, and any trouble with the pancreas, by which an occlusion of that duct may be brought about, will give you the identical symptoms as if we had a stone in the duct. With regard to cysts of the pancreas, of course, every one runs across these occasionally, and they are not infrequently mistaken in the diagnosis. The last case I had six months ago, my first diagnosis was a mistake. At first

I concluded it was some trouble with the spleen, and I thought I could get the splenic notch in making an examination. No sooner had the patient gone from the office than it occurred to me that the case might have been one of pancreatic cyst. So I sent word to the patient to come back. She came back and we opened her up; stitched up to the abdominal wall, and she got along very nicely. I don't know whether the flow ever ceased entirely or not, but my last report from her was that she was gaining in weight and getting along nicely. Now, the hemorrhagic cyst I have never run across that yet. But I think the thing we ought to emphasize and bear in mind always is the very intimate relationship between supposed gall-bladder troubles and the pancreas.

Dr. Haynes: There are two features with reference to the diagnosis that I think ought to be accentuated here. The first is with reference to the urinary findings. Robson is very positive and enthusiastic over the findings of the urinalysis with reference to the diagnosis. He takes his differential stand largely upon the urinary findings, but his partner in the work—Cambridge—and when we speak of Robson and Cambridge we speak of the literature on the subject—Cambridge, who has done the laboratory work is not so enthusiastic, and, therefore, I take it we would follow his teachings. That is the first point. The urinalysis, of course, is a very complicated matter, and if you go through the entire technique it is probable that it is not worth the candle after you get through with it.

The other feature is with reference to the aspirator. Never use it here. Reserve the exploratory incision in preference to the aspirator. I take it that the work that is done in the upper abdomen would probably include a consideration of the pancreas itself. In this region here you have the duodenum, the gall-bladder and the pancreas. You can get along without the duodenum; you can get along without the gall-bladder, but you can't get along without the pancreas. It is essential to life and existence. In operations in this territory, as well as in the diagnosis, much harm is very frequently done to the head of the pancreas. As pointed out by the gentleman who preceded me, the common duct and the duct of Wirsung are very frequently united in the head of the organ itself, anywhere from three-quarters of an inch to a full inch of the head of the organ. Now, very frequently there is a stone lodged in this duct, and this will cause infection, hemorrhage, etc. So it is of the very greatest importance that you don't do any harm to the pancreas itself.

I certainly enjoyed the review of the literature, and I congratulate the Doctor on the large number of cases he has seen. Cases of this disease are very rare. Robson and Cambridge could only secure 160 cases. This does not mean that these cases have not existed, as the gentleman who preceded me has well illustrated. We take it those cases which have been a great rarity in the past become comparatively prosaic when we are educated to detect them when we meet them. In other words, the rarity of the disease is probably due to our lack of knowledge, and as we be-

come more and more skilled in our findings the cases will become more frequent.

Dr. Baldwin: There is very little to be said I am sure. I do not think the diagnosis, as stated by Dr. Hall, is at all possible. The diagnosis is not positive. Acute inflammation of the gall-bladder, perforation of the duodenum, or even a perforating ulcer of that end of the stomach, all will present symptoms identical. There is intense pain, collapse, tenderness on pressure, etc., and you can't make a positive diagnosis. The cases should be opened, and then we can make a diagnosis after the opening is made.

Ovarian tumors should not be mixed up with pancreatic cysts, and if the surgeon will inflate the colon it will be impossible for such a mistake outside and above the tumor springing from the pelvis, whether ovarian or fibroid, but if it is outside and above of the tumor springing from the pelvis, whether ovarian or fibroid, but if it is a cystic tumor of the pancreas, the colon will in the large majority of cases be pushed downward or will run across the tumor. So that a diagnosis should be established.

In only one of my cases were a few calculi found, and I removed them. I think that trauma, as Dr. Hall has suggested, is accountable in large part, directly and indirectly, for these cases. It may appear, as he says, in a very few weeks following the infliction of the injury; it may occur several months afterwards in which trauma could be distinctly regarded as the cause. We can easily understand that trauma of the substance of the pancreas may not produce a tumor immediately, but may produce a chronic inflammatory trouble, and there will be a constriction of some of the ducts following the cicatricial contraction. But unless there is a reasonable proximity, I should put the diagnosis as being doubtful. In one of my cases, in which we found a sarcoma of the mediastinum, the patient was a railway mail clerk, and was thrown in collision against one of the iron supports in his car. He continued his work for six months, and then went to bed. In consultation I made out the tumor as a cyst of the pancreas, inflating the colon with a bicycle pump. The operation was performed without any difficulty whatever, but at the postmortem we found the sarcoma of the mediastinum. There was no trouble in the head of the pancreas in that case. The cases reported by Robson and Cambridge are all cases in which operation was made. They do not report cases that were found following autopsy.

Dr. Gilliam has called attention to the presence of chronic pancreatitis. We find it often in our gall-bladder work, and the prudent surgeon always explains to the attending family and physician that although the gall-bladder or the stones are removed, the trouble may persist. In several instances I have made an anastomosis between the gall-bladder and the bowel in order to afford relief to the patient.

In regard to the splenic notch and its connection with colonic distention, I remember a case some years ago that I saw with a very prominent physician—a former president of this society, so you can judge of the prominence of the man—in which we inflated the colon, but a study

of the colonic tympany of the descending colon showed that it went over the tumor. I suggested the tumor was a tubercular kidney—that was before the days of ureteral segregation. But this physician said he didn't care a d—n for the colon; he could feel the notch. But the progress of the case showed that he was mistaken in the notch. I did not allude in my paper at all to cases in which the pancreas is very extensively involved, and to examination of the urine, because, as Dr. Haynes has said, the findings are unsatisfactory. When the pancreas is prominently involved, there is sugar in the urine, and that is a prominent symptom. It was not found in my own cases. I simply allude to it *not* as a factor in diagnosis. I didn't allude to the aspirator.

Dr. Haynes said that the pancreas is a very essential organ, and yet in looking up this matter I find a case in which on postmortem it was found that the pancreas was absent. Possibly in that case the patient had had an accessory pancreas, and got along without the pancreas proper. We do not know how much pancreas must be left in order to keep the patient alive. Patients live with half of a kidney. But how much pancreas must be left has not been determined. In the case reported to me, the amount that sloughed away was kept track of, and we decided that half of the pancreas had sloughed out, but the patient is perfectly well today and has been able to get some life insurance.

MEDICAL ECONOMICS

The medical profession should be a learned profession. Cornell university will hereafter receive no students at its Medical College that do not possess the A. B. degree. That rule already holds in Johns-Hopkins and Harvard Universities. Medicine, law and theology should be treated as post-graduate studies that require the basis of wide education and trained minds.—(The Independent.)

It is stated that no student or teacher afflicted with tuberculosis will be tolerated in the University of Utah.

To please an audience give it something to think about, in plain language, in audible voice, free from self seeking and in few words to the point.

Many good papers are lost by a poor voice. The auditor is not interested in things he cannot hear. If unable to speak audibly try a megaphone or read by title, be heard or take a seat. Your hearers say so and you are trying to please them.

The two essential factors in public speaking are (1) something worthy the time and attention of the audience and (2) the ability to make the audience hear and believe.

The rush of the work-a-day world demands brevity and dispatch in all branches of human activity. Progressive men economize time in order to meet many demands. Individual work is systematized. Current news is taken from display type. Office hours are kept within time limit only to meet outside engagements. Time for social amenities, friendship, home-life, reading, diversion, meals and sleep is often cut short to meet the exigencies of a busy life. This is the rule of men whom we wish to interest in medical papers or journal articles and addresses. These

men have passed through the sophomore period of elegant diction and learned long ago that it requires something worth the telling and a bit of art to say it in a few plain words.

Medical discourse demands facts, simplicity of expression and brevity. One of the most difficult things in the world to accomplish is the establishment of a fact. This should be the subject of medical papers. There is neither time nor welcome for exploitation of anything else. The way to begin a paper is with its subject, not with the author, and the subject should be limited to a narrow field. One thought in the limelight of a ten-minute paper will accomplish more for auditor and essayist than an attempt to compass a symposium.

In a county society recently a friendly tilt took place as to the relative position on the program and the relative importance between the presentation of pathological specimens and papers. It was largely a question of time. Either feature of society work is important. Scientific medicine demands both. Room must be had in larger societies by establishing sections. Economy of time for all society work is argued by stripping papers and discussions of irrelevant exploitation. Too much time is killed by academic papers.

"The Miracle" is a chemical preparation sometimes used by surgeons to remove hairs from the field of operation. It has the power to dissolve the hair. The follicle is not injured. The hair is reproduced after this application.

The advertisement of this "revelation" of modern science to destroy hair, "endorsed by physicians and surgeons," is so cunningly worded as to deceive thousands in search for such a revelation endorsed by the medical profession.

The "Miracle," of course, is a contemptible fraud as represented by the publisher and the merchant.

Both are guilty of fraud. They have guilty knowledge and should be treated as such. Dry goods merchants sometimes advertise the Miracle. They are responsible for other goods recommended; why not for this false representation and deceptive claim. Is there no moral influence to tell the truth in the face of such lies? The medical profession is made to testify to this falsehood. Why not tell the merchant to quit defrauding, on penalty of loss of respectable patronage?

Many physicians learn medical proprieties only by experience. These virtues are born or bred in some. To others they come slowly, if at all. They reduce the number of office signs. They reduce the size of letters on signs, door plates, letter heads, etc. Medical propriety will not permit the affix or prefix, M. D., or Dr. inscribed on hotel registers, or attached to private or other unofficial manuscripts.

The march of public weal is sure but slow. The prevention of disease is a matter of political economy and human progress.

Public business cannot be done on the same principles that govern private affairs. Hence reform movements, so plain and necessary to the reformer travel with the moral impulse of the masses. Legislation in advance of Public sentiment is useless. Education of the people in reform movements is preparatory to enactment.

The public health defense is best promoted by education. Hence the demand for a public health day in the public schools. The doctrine of hygiene should be taught the children. Teach the necessity of pure air, pure water, pure food; teach the prevention of communicable disease, the truth about venereal diseases and one moral standard for the two sexes. Give us a public health day properly managed and results will be seen in the next generation with men and women trained to the necessities of public sanitation. The first duty of the councilman and the representative will be the health of the people. Waterways will cease to be "miles of typhoid fever" and sanitarians instead of politicians will dictate sanitary administration.

The result of teaching the youth the virtues of personal hygiene will facilitate human progress and medical practice, in individual prophylaxis.

Medical proprieties, medical ethics, and medical economics are the avenues through which physi-

cians come in contact with the people and form an important element in medical organization. The other element is scientific attainment. The laity judge of the profession not so much by its scientific attainments, as by its show of medical economics, medical ethics and medical proprieties. The neglect of these virtues by the profession means more to the laity than an actual deficiency of scientific attainments, simply because these things come within its purview more readily than matters of technical knowledge.

The point is this: the profession is giving nearly all attention to scientific attainments, to the neglect of the other element of medical organization with the effect that, while medicine is becoming wonderfully scientific and useful, its organization work is not growing in proper proportion. The result is, medical men in the several communities are not appreciated for their ability, because the profession has not taken the people into its confidence as advocated by Grover Cleveland and reiterated by R. H. Grube, in the July issue of *THE JOURNAL*.

The great desideration is the development of the weaker element of medical organization by teaching medical economics, etc., as surgery and therapeutics are taught. A chair on these subjects is needed in every medical college.

THE DOCTOR AND THE DEADBEAT.

The average physician is notoriously a victim of the chronic deadbeat. Men who will without hesitation fritter away money on needless luxuries evince a stubborn indisposition to pay the bills of the physician who may have saved their own lives or those of the members of their family.

It is against this class of petty grafters that the physicians intend to protect themselves. Where a man, fully able but unwilling to discharge his obligations to his doctor, makes application for treatment, he will be politely required to settle up before the amount to his credit is lengthened by another dollar.

Such action only puts physicians on a plane with business men generally, who have these long years taken steps to protect themselves against the particular variety of well-to-do impostors now sought to be eliminated.

As for charity work pure and simple, the average physician could make disclosures that would open the eyes of the men and women who plume themselves upon achievements in this direction.—(Atlanta Constitution.)

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THE OCTOBER McCORMACK MEETINGS IN OHIO.

Dates are being arranged for a series of public meetings to be held by Dr. J. N. McCormack, at various places in Ohio during the month of October.

This is a most important event not only for the medical profession, but for the people of Ohio. It is the universal testimony coming from every State that Dr. McCormack has visited—and he has visited a majority of all of them—that his lectures are an uplift to the cause of civilization.

There is some misapprehension about the character of these lectures. In some places it is thought that Dr. McCormack's visits are for the purpose of organizing county societies, and, consequently where county societies are already organized, his services are not needed. Nothing could be further from the truth.

Dr. McCormack's lectures are in the highest sense educational. They are intended for audiences consisting of the medical profession and the laity. Their object is to create a better understanding between the physician and the people. They give the physician a better standing with his patients. They open the way to the enlarged influence of the medical profession on public questions. They always result in advancing the prestige of physicians in influencing all matters of medical and sanitary legislation, and in this way are always helpful to the people.

In the forthcoming tour, Dr. McCormack will deal largely with questions of medical legislation now pending in Ohio, thus materially assisting the Committee on

Medical Legislation and Public Policy and of the county auxiliaries of that committee. It is the representatives of the legislative machinery of the State Association that ought especially to appreciate the opportunity and advantage offered in Dr. McCormack's tour. They, in connection with the officers of the county societies ought to do everything in their power to have large and influential audiences *of the people* to hear him.

In Alabama the legislature adjourned its proceedings and went in a joint body to hear Dr. McCormack in the assembly room of the capital. The same compliment has been paid him in other states. Everywhere that he has gone he has been greeted with similarly representative audiences. Ohio must not be behind other states.

The local societies in promoting this series of meetings ought to go about it very systematically. They should determine when and where the meetings are to be held. They should determine who in particular are to be invited. This special list should be made up of all men and women who have a distinct influence on public opinion. This should be supplemented by a general list made up of persons whose names are furnished by each individual member of the society. Then printed invitations should be sent in the name of the society to every person on these lists. This should be supplemented by announcements of the meeting through the local newspapers, the churches and other avenues of publicity, the announcement being coupled with a general invitation to the public.

In this way every meeting will be made a success.

THE NECESSITY OF THE EXPERT ANESTHETIST.

In the past year or two articles such as the two in this number of *THE JOURNAL* have appeared from time to time in current literature pointing toward the necessity of a new specialty, that of the anesthetist. These have usually been from the pens of men who have devoted themselves to the study and use of anesthetics, and therefore the suggestion of self-interest has to some extent, though most unjustly, neutralized the claims put forth and the warnings uttered.

At present, however, others are taking up the cry, and a propaganda is being started which it is to be hoped will awaken our profession at last to a long ignored sense of obligation and responsibility.

When ether was first introduced as an anesthetic it was greeted as the wonder of the age, and the administrator was the hero of the clinic, quite eclipsing the operator. How soon, however, does the glamor wear off from the newest and most wonderful invention or discovery! Yesterday's marvel became to-day's luxury perhaps, but tomorrow's plain necessity. The great impetus given to surgery by the use of ether led rapidly to its universal employment, and in those days of high mortality due to post-operative shock, lack of asepsis or antisepsis, ether, even when badly given, doubtless materially lowered the death rate. To a surgeon accustomed to having his patients strapped down or held by several attendants and operating to an accompaniment of shrieks and groans, the relatively lessened struggles or rigidity of even a badly anesthetized victim must have seemed peace indeed. And even if there was an occasional death on the table or a post-operative pneumonia, nephritis, excessive nausea, etc., were not all these preferable risks when considering the greater ease and thoroughness of operation, the avoidance of accidents due to struggling and the lessened shock and depression from pain and dread? Ha-

bituated to its use, it appeared no trick at all to administer it, and little or no instruction in its use was deemed necessary. In hospitals, the latest acquisition to the house staff, the greenest graduate, not considered competent to assist in the operation, was assigned the duty of giving the anesthetic, and so the practice spread and developed into a pernicious custom, which has seriously handicapped surgery in recent years and caused the needless sacrifice of many, many lives.

That this is true all surgeons must admit. The discovery of ether, followed successively by the introduction of antisepsis and asepsis, opened the way to the surgical triumphs of today. Operations at present in delicacy and finesse are very different from those of sixty years ago, when the struggles of the patient were of little matter. Who of us has not seen repeatedly a surgeon seriously embarrassed by rigid abdominal walls that should have been soft and relaxed? How many operations have been botched, and how often traumatism of the parietes or perhaps badly placed ligatures have resulted from this cause, followed by infections or hemorrhage, which jeopardized or even caused the loss of many lives? How many of us—not frequently, perhaps, but the writer can tally at least a dozen instances—have not seen the surgeon have to stop the operation in order to help resuscitate an asphyxiated patient? Many have doubtless witnessed that most distressing occurrence, a death on the operating table due to the anesthetic. These, fortunately, are rare; but for every one of them how many remote deaths occur which may be traced to the anesthetic and for which the surgeon and surgery must bear the onus? How long will surgeons continue to stand for this condition of affairs? And yet, as Dr. Baldy asks in his address as president to the Gynecological Society, "whose fault is it? It is not the hospitals; they are perfectly acquiescent in such matters to the

rules of the attending staff. It is not the fault of the young internes; they are merely following instructions." It is purely and simply the result of a bad custom into which we have fallen and for which we have absolutely no excuse save in emergencies. As Bacon says, "Men commonly think according to their inclinations, speak according to their learning and imbibed opinions, but generally act according to custom." Surely it is enough that the evil of this custom be shown to the medical profession for it to overthrow it by stamping it with disapproval.

The progress of modern surgery in all departments of skill and technic is amazing save in this one; post-operative mortality has been reduced to a minimum, but the inexperienced anesthetist still reaps a mournful harvest. He is an anachronism and must go.

PRIVILEGED COMMUNICATIONS.

There is a generally current opinion among physicians that all communications of patients are sacred and inviolable confidences, even to the extent of absolving the attending physician from testifying in court unless distinctly permitted by formal consent of the patient. The case, therefore, of Dr. Kistler, of Newcomerstown, very naturally aroused considerable indignation. Feeling that a legal opinion would even strengthen the sentiment of disapprobation and have more weight with judges in the future, we asked Hon. E. B. Kinkead to write his views on the matter.

The details of the case referred to will be found in Dr. Kistler's statement on another page.

Mr. Kinkead's reply to our request upsets the common belief and therefore should receive careful attention. His statement is as follows:

To the Editor of the OHIO STATE MEDICAL JOURNAL:

Answering the inquiry presented by the communication of Dr. George B. Kistler

concerning the privilege claimed by him in the distressing case into which he was called, I would say that under the law in Ohio there seems to be no privilege extended to physicians under such circumstances. The policy of the law has ever been to remove the ban of privilege whenever the subject of judicial inquiry is the commission of a crime.

The question whether a communication between physician and patient which, if divulged, would lead to the disclosure of the commission of a crime, is privileged seems not to have been decided by our court of last resort, although in criminal practice, trial judges have had occasion to deal with the subject and have decided as the court did in the Kistler case.

Under what we call the common law, i. e., the authority of judicial precedent, there were no privileges extended to communications between physician and patient, and unless we find the privilege extended by statute there can be none with us.

There is a statute covering all civil cases, so that in such controversies a physician cannot be compelled to disclose communications between himself and patient. There is no such corresponding statute in our criminal code, and as our criminal law, both that pertaining to substantive law as well as procedural law, is dependent entirely upon statute, we must conclude that there is no privilege extended to communications between physician and patient in criminal cases, that is, where the communication, if disclosed in evidence, would lead to the detection of a crime. It is not the policy of the law to lock up such secrets in the bosom of physician, lawyer or minister.

Under the peculiar circumstances disclosed by Dr. Kistler's communications, it seemed unfortunate that the doctor was compelled to testify, but it is to be hoped that the horrible wrong in this particular case will be righted.

I do not believe that lawyers, doctors or ministers would enjoy being made legal custodians of communications leading to the commission of crime by the ban of privilege. Respectfully,

(Signed) E. B. KINKEAD.

This opinion is of great importance to physicians, and Mr. Kinkead is such an authority that we feel it is final. As far as the concealment of crime is concerned, phy-

sicians as a class will welcome the freedom from any such necessity. We can only sincerely regret Dr. Kistler's very unfortunate treatment, and, while congratulating him upon his fortitude in suffering in behalf of what he thought his duty to his patient, take warning ourselves from his experience.

DEATH OF DR. JOSEPH EICHBERG.

It is with great regret and sense of personal loss that we chronicle the sad death on August 18th of Dr. Joseph Eichberg, of Cincinnati. The medical



profession of Ohio has lost one of its most brilliant members, and his death creates a vacancy in our midst that will be hard indeed to fill.

According to the press dispatches, Dr. Eichberg was visiting friends in the Adirondacks and while fishing his boat capsized and he, with two others, was thrown into the lake. The water in the New York mountain lakes is often very cold, and he being unable to swim, was soon overcome in spite of the efforts of his companions to assist him.

Joseph Eichberg was born in Cincinnati on March 17, 1859. He attended the public schools and graduated from the Hughes High School. He immediately entered upon the study of medicine in the Miami Medical College and graduated with

high honors in 1879. He was appointed interne in the City Hospital and served in that capacity for one year, after which he studied abroad in the Clinics of Vienna, Paris, Berlin, and Heidelberg. In all he spent over two and a half years in post-graduate work in these cities and acquired a grasp of pathology, physiology and diagnosis which contributed greatly to his later eminence as an internist.

On his return he entered the practice of general medicine, and soon showed evidence of his marked ability. He was appointed on the staff of the City Hospital and for twenty-five years served in that capacity, giving freely of his time and strength to the sick poor whenever called upon. His first connection with the teaching of medicine in the Miami Medical College was, we believe, in the department of physiology, but his marked ability as a diagnostician and internist led to his appointment as Professor of the Principles and Practice of Medicine, with which position he has long been associated in the minds of the medical profession. A forceful lecturer, a painstaking and brilliant clinician, an adroit diagnostician, with a magnetic personality, he will long be remembered by a large body of students fortunate enough to have known him.

As a member of the Cincinnati Academy of Medicine, of the Ohio State Medical Association, and of the American Medical Association he was too well known to need comment.

His contributions to these societies, in the form of papers or in discussions, were always marked by thorough grasp of the subject and deep scientific knowledge, together with a practicality and lucidity that aroused the profound interest and admiration of his hearers. His reputation was not limited to his home city nor state, but was widespread over the country at large.

He married in 1889, and had but one child, a daughter.

Too earnest in his work he had but little time to devote to the social amenities of life, and therefore was not a member of any social organization except the Pelee Island Fishing Club, whose quarters are located at Pelee Island, near Sandusky. It was his custom to enjoy a rest each season with the members of the club on this island, where he could indulge for a few weeks in fishing; the only pastime he allowed himself.

Dr. Eichberg left this city July 31st with his wife and daughter for Tupper Lake, in the Adirondacks. All preparations had been made to leave yesterday afternoon for Childwold Park, a short distance away from the lake, and the fatal boat ride was to have been the pleasant climax of a happy holiday.

EDITORIAL NOTES

HUMANE TREATMENT OF LEPERS.

How long is the country to be harrowed with reports of progressive horrors in the Wardwell case?

This week's dispatches relating to the matter have borne date of Bisbee, Ariz., and Washington, D. C. From Bisbee comes the information that Mrs. Wardwell, afflicted with leprosy and now held in quarantine at Tombstone, has become a maniac and is kept shackled to a bedpost. Her husband, who helped her to escape from quarantine at Los Angeles, and who refuses to permit her to be separated from him, is weak from an operation for cancer. Governor Kibbey is to be asked to pardon Albert Cole, a brother of Mrs. Wardwell, who is serving out a six-year sentence of imprisonment at Yuma, so that the aged couple may be cared for by Cole. The Washington dispatch states on the authority of H. D. Geddings, of the bureau of health and marine hospital service that Mrs. Wardwell cannot be removed to the leper settlement on the island of Molaki. The latter is a charity maintained by the territorial government of the Hawaiian Islands, and, although these islands are virtually a part of the United States, there exists neither law nor precedent to warrant the removal of lepers to the settlement from any locality outside of Hawaii.

So far as appears from the dispatches, no effort has been made to commit the unfortunate Mrs. Wardwell to the leper home maintained by the state of Louisiana, where, according to recent advices, the Sisters of Charity in charge have recently succeeded in curing six pronounced cases of leprosy. The Louisiana lepers are not isolated. The Sisters use no medicine and employ no special treatment, relying wholly upon measures calculated to ensure the sanitary well-being of their patients. There are cheerful surroundings, good air, opportunity for outdoor exercise and wholesome food. Finally, particular attention is paid to cleanliness.

Of sixty-one patients whom the Sisters have cared for six have been cured—practically ten per cent.—and the undertaking is in its infancy. In a country like the United States intelligence and humanity should prevail sufficiently to prevent barbarity to persons suffering from a disease which while undoubtedly communicable is not in this climate incurable or highly contagious. The Louisiana method of dealing with lepers is in cheerful contrast with that of Eastern immigration officials, who packed poor Bertha Osis off to Russia a few weeks ago, and with the frightened, arm's length dealing of California and Arizona communities with the sad case of the Wardwells.—Milwaukee Wisconsin.

We are glad to note the above in a lay journal of recent date, and hope that it may be widely copied and read. The treatment accorded unfortunate lepers in this country is nothing short of barbarous. The disease for a number of years has been recognized as very feebly contagious, requiring long exposure and intimate contact for its conveyance, and yet the dread of it inherited from other days, so transforms civilized christian

people as to cause them to commit acts so inhuman as to be almost incredible.

This is another subject on which the public needs instruction from the medical profession.

DOES QUARANTINE MAKE PAUPERS?

The Supreme Court is asked to decide whether destruction of earning power by quarantine carries the quarantined persons into the category of legal paupers.

V. Z. Miller, of Clay township, Montgomery county, had the contract with the trustees to doctor the poor of his precinct for \$60 a year. He attended a family quarantined for smallpox, who were thus unable to earn money to pay their doctor bill. The trustees refused special compensation, and the doctor sued the public officials for \$248. The magistrate decided against him, and the Common Pleas Court did likewise. But the Circuit Court held that the instance was a special service outside the pauper contract. Recently the trustees filed a petition in the Supreme Court asking a reversal of the Circuit Court decision.

CORRESPONDENCE

Newcomerstown, O., April 6, 1908.

Ohio State Medical Journal, Columbus, O.:

Dear Sirs—I would like the medical profession of Ohio to pass judgment on the following case: A man came to a physician's office recently with a circular incised wound of the penis. The physician sutured the wound and gave patient proper treatment thereafter. Two months later physician was summoned before a grand jury, where this man was under bond, charged with assault with intent to rape.

The prosecuting attorney asked the doctor if Mr. — (naming him) had called for treatment of a wound on blank date; physician refused to answer. When asked for his reasons for not answering, replied because of the confidential relation existing between physician and patient, patient not having waived his right. He was asked many more questions relative to the nature and extent of wound as to location and direction, depth, etc., all of which he refused to answer for reason stated. He was then ordered before the Common Pleas judge, who asked his reasons for not answering said questions. He again replied because of the confidential relation existing between physician and patient.

He was then ordered back to the grand jury room, accompanied by the court stenographer, where the same questions were again asked and like answers returned as before, the court stenographer transcribing the questions and answers.

The court placed the physician in custody of the sheriff while he examined the questions and answers, and later ordered the physician to answer all questions under penalty of law; also any other of a like nature. Physician again protested and asked what, if any, questions are privileged, but received no satisfaction. He further asked if there are any questions he need not answer. The court answered yes, but would not state what they were. He was again placed in the custody of the sheriff and returned to the grand jury room, where he answered under protest fully all questions asked. He was again called back to the court and given a scathing rebuke, threatened with penalty and finally discharged, much humiliated.

Was this treatment lawful under Section 5241, Revised Statutes of Ohio? Or are there no privileged communications between physician and patient in Ohio? What is his recourse for being detained from business, humiliated by being in custody of sheriff, rebuked by the court and given publicity by the press? Will the medical profession tolerate this insult?

Section 5241 of the Revised Statutes of Ohio says the following persons shall not testify in certain respects: "A physician concerning a communication made to him by his patient in that relation, or his advice to his patient." But the physician may testify by express consent of the patient, or if the patient voluntarily testify he may be compelled to testify on the same subject. But this patient had neither testified himself nor given his consent for the physician to testify in this case, it being a hearing before the grand jury only. Webster says, "A communication is the act of imparting a fact." This patient imparted or communicated his infirmities by his presence, showing his wound and imploring assistance. This man's defense is practically ruined by the prosecution obtaining all the facts concerning the infliction of the wound, by its direction, shape, depth, etc. Patient is much humiliated by the taunts and sneers received as a result of having his infirmities made known to the public. Every principle upon which privileged relations are founded has thereby been destroyed. The law presumes a man innocent until proven guilty. Since this man has had no day in court other than to appear before a magistrate and enter a plea of not guilty, by what power can a judge destroy his defense by giving plaintiff and her attorneys access to the facts as to location, direction, depth and manner of wound being inflicted, that they may build their prosecution on these facts, instead of giving their own version of the facts in court, which, if true, will agree

with scar left by said wound. Both plaintiff and defendant are and have been for many years patients of mine, and I am free from prejudice in this case. Simply justice to the community and the medical profession is all we ask. Yours respectfully,
 GEO. B. KISTLER.

WHEREAS, The communications between physician and patient is of vast importance and should be one of profound secrecy, both in support of the best interests of the medical profession and the protection, promotion and welfare of society; and,

WHEREAS, The Legislature of Ohio, in Section 5241 of the Revised Statutes, has wisely and judiciously enacted into law that a physician shall not testify concerning a communication made to him by his patient in that relation or his advice to his patient; and,

WHEREAS, The Tuscarawas County Medical Society are cognizant of the injustice and indignity perpetrated and imposed upon an honored member of said society by the court and prosecuting attorney of Coshocton county, Ohio, in contravention of said Section 5241 of the Revised Statutes of Ohio, regarding the privileged communications of physician and patient in that relation; therefore, be it

Resolved, That we as a body protest against and deplore such action and demand that the rights and privileges to physicians by said Section 5241 of the Revised Statutes of Ohio be upheld as a matter of justice and statutory law.

Cincinnati, O., August 24, 1908.

To the Editor:

At a meeting of the executive committee of the Miami Medical College Alumni Association August 20, called by the president, W. H. Campbell, the following resolutions of respect to the late Dr. Joseph Eichberg were adopted:

WHEREAS, In view of the loss we have sustained by the decease of our friend and associate, Dr. Joseph Eichberg, and of the still heavier loss sustained by those who were nearest and dearest to him; therefore, be it

Resolved, That it is but a just tribute to the memory of the departed to say that in regretting his removal from our midst we mourn for one who was in every way worthy of our respect and regard.

Resolved, That we sincerely condole with the family of the deceased on the dispensation with which it has pleased Divine Providence to afflict them, and commend them for consolation to Him who orders all things for the best and whose chastisements are meant in mercy.

Resolved, That a copy of this heartfelt testimonial of our sympathy and sorrow be forwarded to the family of our departed friend and that copies be sent to the medical journals for publication.

W. H. CAMPBELL, FRANK H. LAMB,
 RALPH R. WILKINSON, R. W. BLEDSOE,
 E. M. CRAIG,
 Committee of the Miami Medical College Alumni Association.

STATE BOARD NEWS

ROBINSON BOUND OVER.

H. H. Robinson, hailing from Clyde, Ohio, and operating from St. Marys and later from Wapakoneta, was arraigned before Mayor Hassmiller, of Wapakoneta charged with illegal practice of medicine. Robinson had a pet formula handed down to him by his ancestors and wanted to save the lives of the sick women in the country. Occasionally he persuaded the women to engage treatment for their husbands, who were at work in the fields. By holding himself out as a physician he was able to gain the confidence of those who afterwards became his patients.

He was bound over to the grand jury in the sum of \$200.00.

"SO NEAR BUT YET SO FAR."

The Zanesville Times a few months ago printed an article which appeared as a news note, but had all the earmarks of a paid advertisement, announcing in large headlines Neuro-Magnetic College Graduate Gets Decision in Higher Tribunal—Friends are Jubilant, etc.

The article gives a very exaggerated account of the decision which was made upon a slight technicality, in the old law, and which has been corrected so that in the future no such escape will be possible. It should also be mentioned more or less casually that Marsh was defended by a congressman who took advantage of the slight technicality mentioned, although the meaning and intent of the law were plainly evident. Does it not seem a trifle inconsistent for a member of congress, a lawmaker, to aid in defeating the plain intent and purpose of a law by taking advantage of a verbal technicality? Does it argue for his fitness as a lawmaker?

The facts are as follows: The case was that of C. C. Marsh, reported in the December JOURNAL, page 330.

It will be remembered that Marsh admitted having received a fee for treatment, but contended that he was not prohibited by law from doing so, since he did not recommend or prescribe it. Judge Young, of Marion County, sustained the contention and ordered the jury to find for the defendant.

Now come the "Healers" praising Judge Young for his support and with much enthusiasm encourage those who will enter the "Institute."

As a special inducement the fee has been reduced from \$500.00 to \$300.00 to all who matriculate during the next three months.

There might have been a serious side to this had not the action of the Supreme Court been antici-

pated and the error corrected in the revised and consolidated statute which became effective July 1, 1908.

Under the existing law, not only those who "recommend and prescribe treatment," but also those who advise, administer or dispense it are liable, if it can be established that a fee or compensation of any kind either direct or indirect has been received.

The Neuropaths claim that many have procrastinated in entering their profession (?) (sic) on account of the price and the legal bug-a-boo of prosecution. Under the new law the bug-a-boo should be spelled with a capital B.

CHIROPRACTOR ENJOINED.

Probably one of the greatest weapons against the illegal practitioner was wielded when injunction proceedings were instituted against H. L. Murchison, of Sandusky, on August 4. Murchison classes himself as a "chiropractor" and claims to be able to cure typhoid fever in a day. The school which he represents is located in Chicago and is, we understand, working in harmony with the notorious Charles McCormick, whose graduates have organized the "Association of Independent Doctors." The suit was based upon the claim that Murchison, who was not a registered physician, was securing patronage from those who would otherwise employ a licensed physician; that, since he was not versed in medicine and not qualified to practice, his methods and practices were a menace to public health.

Recognizing that the health of the public was involved and that unfair competition was being practiced, Judge Reed, of Erie county, did not hesitate to grant a temporary restraining order.

The injunction was made permanent on August 11, after able argument by both the state and the defense. The state was represented by Hon. O. E. Harrison, special counsel to the Attorney General, and Eugene Guerin, of Sandusky, and to them the profession is indebted for the outcome.

Bond for appeal has been filed, and the case will be heard before the Circuit Court in September. If the decision is sustained by the higher courts, we will congratulate ourselves on having further recourse against illegal practice.

Much credit is due Chas. H. Merz, of Sandusky, the active officer of the Erie County Medical Society, without whose efforts the above prosecution would have been impossible.

It should be further stated that Murchison was also prosecuted for illegal practice, and after a hearing before Justice Dietrich on August 3 was bound over to the grand jury in the sum of \$500.

CURRENT MEDICAL LITERATURE

J. E. TUCKERMAN, M. D., Cleveland

PREPARED BREAKFAST FOODS—A POSSIBLE DANGER.

When the eating of prepared foods is so common, it is well to consider whether a highly concentrated food lacking sufficient bulk to cause proper bowel activity is safe, particularly when it is used as an exclusive diet. Smith, in a letter to *The J. A. M. A.* (June 24, 1908), cites two instances of colitis (which he noticed in 1905) due to balled masses of the undigested foods remaining in the large bowel. These were removed by a large castor oil cathartic. "Force" and "grape nuts" were the offenders in these instances, while since then he has seen bowel obstruction and convulsions in a child of two years who had had free access to "Elijah's manna." These foods are undoubtedly of value, but ill results may be expected, as with every other good thing, when used immoderately.

COMMON GASTRIC DISORDERS AMONG SCHOOL CHILDREN—CAUSE AND CURE.

Perry (*Calif. State Jour. Med.*, June, 1908, p. 207) does not rely on symptoms of heartburn, acid eructations, vomiting and tenderness for diagnosis, but considers that "the syndrome of constipation, debility and loss of weight, without fever or any weakening discharge, warrants looking directly for a disorder of digestion."

He found a great many children were perfectly well and properly developed for their ages until shortly after commencing school, when they showed the just mentioned symptoms, with a poor appetite for breakfast. They ate their meals in a great hurry—in five or ten minutes, perhaps. He tried to find out what this had to do with school life, with this result:

"Of over 700 children the majority had remained at home to eat luncheon ten or twelve minutes, allowing ten minutes on the journey each way, and from this must be deducted a few minutes with some in waiting to be served. * * * The state law allows one hour for lunch, but the teachers require the pupils to return at five or ten minutes before 1 p. m. The principal reason is that the children hurry back to play in the school-yard or gossip. The fast eating causes hyperchlorhydria, starchy indigestion, emaciation and anemia. * * * The cause being known, it would seem to be a simple task to remedy. But it is not so. The difficulties are the intense desire of the child to play, which is not satisfied at home,

for we are in the era of small families, which do not provide other playmates of the same family. The residence in flats and apartment houses allows no suitable playground to meet the children of neighbors; the independent spirit of the children does not usually submit to parental control as to the time of returning to school or of the manner of eating or the kind of food. The directions to parents are not to allow the children to return to school until fifteen minutes of the legal school time (1 p. m.), and not to have water on the table and no soft breadstuffs of any kind. This advice is not usually followed unless the parents become alarmed as to the condition of their children."

Aside from the correction of hasty eating, a cure is aided by active malt preparations and by the use of fats, which are known to reduce gastric acidity and tend to hasten the evacuation of food from the stomach into the bowel. Perry says:

"In this condition it has long been known that peptonized milk, cream, olive oil, cod oil in emulsion and plain cod oil cause great improvement. * * * The good effects of cod oil in the anemia of children and youths was at first attributed to the iodine, and then, to the small amount of extractives in it. Later experience has shown that other fats, animal and vegetable, may fully replace it. * * * Many physicians are tempted on sight of an anemic child to order iron or bitter tonics. In my opinion, bitters are useless, and iron preparations are positively injurious to the stomach."

ATOXYL NOT A SPECIFIC, BUT OF VALUE IN THE TREATMENT OF SYPHILIS.

Dardel (*Amer. Jour. Derm.*, June, 1908, p. 249) states that "Atoxyl has an undeniable action upon the symptoms of syphilis, but it cannot be considered a specific, such as mercury is." Like every arsenical derivative, it has a definite action upon the skin; less upon mucous membranes. * * * Often its action upon chancre, roseola, papulous and ulcerous syphilides is very rapid, but its action does not last; we must soon come back to mercury.

Atoxyl is poisonous, is eliminated slowly, and therefore high doses are to be dreaded, and oft repeated small doses may cause cumulative effects. Diarrhoea, vomiting, sleeplessness, fever, urinary retention, erythema and even albuminuria and optic atrophy may be produced.

Cases are frequent in which the use of mercury cannot be prolonged. Here atoxyl can do good service while waiting until a return can be made to mercury. It acts probably like arseniate of soda does, as a salutary modifier of the general state. There are still many uncertainties, and an absolute opinion cannot be given; yet it seems it can only be a remedy of the second order in the treatment of syphilis.

"Atoxyl is employed in solution under the form of intra-muscular injections. High doses are dangerous. One must never get beyond 0.75 ctg. and never make more than four injections by series. Here is the method recommended by Hallopeau: First injection of 0.75 ctg. The second one, done two days after, of 0.60 ctg. Afterwards, at three days' interval, two new injections of 0.50 ctg. to 0.40 ctg. Altogether four injections. Never go beyond; then elimination is slow, and successive doses would accumulate in the organism. A similar series of injections can be usefully associated with mercurial treatment, in an intermittent way. For example: A week of atoxyl, ten days' rest; two months of mercury, ten days' rest; new series of atoxyl, etc. Avoid simultaneous use of atoxyl and mercury."

Summarizing, he says: (a) Atoxyl has a therapeutic action that is clear enough upon the symptoms of syphilis, but this action is very inferior to that of mercury. (b) Its action is rapid. (c) Atoxyl does not possess, like mercury, a preventive action, for prompt relapses are frequent after its use. It is not, like mercury, a specific agent for syphilis. Its action is similar to that of the iodides; it heals symptoms, without reaching the cause. (d) Atoxyl has an incontestable and rapid resolute action upon cutaneous lesions and especially upon ulcerative lesions of syphilis; the action upon the mucous membranes is not so clear. (e) Atoxyl as an injection is not painful. (f) Atoxyl being poisonous, possible accidents must always be foreseen. (g) Atoxyl cannot supersede mercury, but it may be a useful auxiliary in certain cases, either for mixed treatment or to establish a tonic medication.

"Atoxyl is an occasional remedy. It can be useful in the beginning of malignant syphilis. It is specially precious when a particular cause makes it impossible to use mercury. But it must not be forgotten that, its action being exclusively symptomatic, it does nothing against the cause, the disease, the diathesis. Also, as soon as possible, we must return to mercury."

MELENA NEONATORUM—REPORT OF A CASE CURED BY TRANSFUSION.

Lambert (Med. Rec., May 30, 1908, p. 885) reports this case. The patient, a girl, had shown progressive bleeding from the time of birth for four days. Calcium lactate had failed to check the bleeding, and the case seemed hopeless.

"The baby's skin was waxen white, and the mucous membranes without color; the nasal bleeding was continuous; the vomited matter contained food curds, dark blood and at times bright clots; the stools were frequent and contained bright red blood; the subcutaneous hematoma on the scalp increased until the right eye was closed, and ecchymotic spots appeared on the legs; the respiration was rapid and superficial; the pulse weak, counting 150 just before the operative procedure.

"It was decided to attempt a direct transfusion of blood from the father of the infant by end-to-end anastomosis of the two blood vessels, after the manner devised by Dr. Carrel, of the Rockefeller Institute. * * * The right popliteal vein of the baby was sutured to the left radial artery of the child's father, without anesthetic to either patient, and enough blood was allowed to flow into the baby to change her skin from a pale transparent whiteness to a brilliant red color. * * * The wound in the leg up to this time had oozed a slight amount of pale, watery blood, which did not clot well. It began to bleed freely, and the blood promptly clotted. The nosebleed stopped instantly. The pulse became full and strong and slowed down, and the respirations were deep and full. As soon as the wound was sutured and dressed the baby was fed an ounce of milk, which she took ravenously and retained and immediately went to sleep.

"Since the ending of the transfusion there has been no hemorrhage, no vomiting and no diarrhea. Convalescence from the operation was uninterrupted, except for a slight infection of the wound. There was no evidence of hemolytic action at any time, and all the symptoms of melena ceased at once. * * * This case presents a complete resume of the symptomatology of melena, and the condition was easily differentiated from the other various kinds of hemorrhage to which the newborn are liable. The essential points were the early nosebleed, the rapidly increasing pallor and anemia, the febrile action and the restlessness followed by the characteristic bloody vomit and stools and the subcutaneous ecchymoses. * * * The striking thing in the case is that the disease

ceased suddenly, and the child has been cured from the moment of the transfusion of blood. * * * At time of operation the baby was in a dying state and had palpably only a few hours to live. Immediately afterward the baby was in perfect health. There was no period of convalescence. * * * The only possible explanation of so rapid a change must be found in a chemical condition of the blood. And the final conclusion as to the nature of the disease is that melena neonatorum is a congenital malformation of the blood of unknown chemical nature. The solution of the problem of its etiology is to be found in a chemical study of the processes of osmosis in the capillary vessels, of the chemistry of blood coagulation, and along kindred lines, which are for the most part new and untouched."

ABUSE OF ALCOHOL IN THE TREATMENT OF CHILDREN'S DISEASES.

Townsend (Bost. Med. and Surg. Jour., July 30, 1908, p. 143) states that the psycho-therapeutic effects which may be expected in adults are for the most part lacking in children. Children do not fret and worry over mental difficulties, but, so long as bodily comfort is assured, rest easily. He believes that too frequently more alcohol is given to children in sickness than is by any means necessary, and cites the following incident of over-dosing:

"A. B., a female infant, twenty-two months old, was suddenly attacked with pneumonia, during which the temperature ran a high course, and the infant was considered desperately ill. Although the temperature came to normal, the child remained in a stupor, did not recognize its parents, showed some rigidity of the muscles and had a convulsion. The diagnosis of meningitis was made, and I was asked to see the child in consultation after these symptoms had continued for four weeks.

"The infant was pale, limp, stupid looking and did not seem to notice anything nor to recognize its parents. There was no retraction of the neck, no Kernig symptom, and the pupils reacted to light. The temperature was normal, and physical examination of the chest showed nothing abnormal.

"On investigation it was found that the nurse had continued to give a dram of whisky every hour, as first prescribed during the acute attack. In addition to this, the infant was receiving daily seven teaspoonfuls of a proprietary food whose strength in alcohol was equal or superior to that of whisky.

"It is needless to say that the diagnosis of meningitis was carefully modified, and the infant made a good recovery."

NITRITES, MORPHIN, ATROPIN, THE MOST VALUABLE DRUGS FOR CHECKING PULMONARY HEMORRHAGE.

Placak (Cleveland Med. Jour., July, 1908, p. 403), in reviewing experience at the city sanatorium, says:

"The best success obtained, other than by giving nitrites, was by the administration of morphin; next by giving atropin, and last by the use of ice. * * * The use of amyl and sodium nitrites in controlling hemoptysis has been most gratifying. * * * If amyl or ethyl nitrite are inhaled, they produce an almost immediate effect. The nitrites of the alkaline metals have the same properties and therapeutically have the same indications. The best of these and the one which is most constant in its action is sodium nitrite. Its action is produced in about fifteen or twenty minutes, and, in doses of about five grains, is prolonged to three or four hours. Nitroglycerin is slower, but more lasting in its action because of the necessary and gradual reduction to a nitrite which it must undergo in the blood. * * * The best results have been obtained by breaking a three or a five minim pearl of amyl nitrite in a piece of gauze and allowing the patient to inhale the vapor until the hemorrhage stopped. After a few inhalations the blood pressure becomes quite low, aiding materially in forming a clot. Sodium nitrite was given in five grain doses four hours apart after hemoptysis was stopped to maintain a low pressure. Patients were kept absolutely quiet in the recumbent position and on a non-stimulating diet. In case the patient is nervous and there is considerable cough, which is usually the case and which is due to the irritation caused by a certain amount of blood in the trachea and bronchial tubes, morphin or codein should be given to quiet the patient and stop the cough.

"The pathologic condition of the lungs should always be borne in mind, and success in treatment depends largely upon it. Hemoptysis might be due first to a congestion or an erosion of a small vessel in the lungs, which is by far the most frequent occurrence, or, second, to the erosion of a large vessel or the rupture of a small aneurysm, which is not so frequent. The latter condition is present usually in cases which have advanced to the cavity stage.

"The nitrites seem to be contra-indicated in the latter class of cases, in which the pulse is small

and weak and there seems to be some risk in administering them. * * * This class of cases had better be treated by the use of morphin, atropin, the ice cap, etc. The presence of a heart lesion combined with the tuberculosis seems to be no bar to the use of the nitrites."

[The report states that calcium chloride seemed to have no effect on the coagulability of the blood. The dose used was five grains. This is too small to be conclusive. Results can be obtained with twenty grain doses every two hours for twenty-four hours; then stop or reduce the dose, as is indicated in the particular case. Syr. glycerrhæzæ serves to conceal the taste of the chloride, or the lactate may be used. The latter, however, is *decidedly less soluble* than the chloride and cannot be conveniently dispensed in solution.—Editor.]

BOOK REVIEWS

A TEXT-BOOK OF SURGICAL ANATOMY. By William Francis Campbell, M. D., Professor of Anatomy at the Long Island College Hospital. Octavo of 675 pages, with 319 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; half morocco, \$6.50 net.

Dr. Campbell's new "Surgical Anatomy" is refreshing and lends the physician a feeling of satisfaction, since the author has "translated anatomic facts into their clinical values and clothed them with living interest." The work is well illustrated; is the ideal size for ready reference, and will be found most useful to the physician and surgeon, because the subject matter is clear; the style concise, and the anatomy of the various regions considered as fundamental facts bearing upon diagnosis and the clinical aspect of injury and disease.

SEXUAL DEBILITY IN MAN. By F. R. Sturgis, M. D., formerly Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York; sometime Visiting Surgeon to the Venereal of the City (Charity) Hospital, Blackwell's Island; member of the American Association of Genito-Urinary Surgeons, etc. E. B. Treat & Co., New York.

Sturgis treats his subject in an interesting as well as a thorough and systematic manner, drawing his deductions largely from his personal observations. On many points he does not hesitate to differ from classical opinions, but is not dogmatic and supports the positions he takes logically and temperately. Many of his views should be given careful consideration, and will meet with the approval of thoughtful readers.

The subject is one that should invite more attention from the general practitioner in that the "sexual cripples" described by the author too often go from one physician to another seeking relief too often in vain. Personal distaste and innate repugnance will give way on a better understanding of the usually underlying and real pathologic conditions present, the relief of which brings results comparable to any of the triumphs of modern medicine.

GOLDEN RULES OF DIETETICS. The General Principles and Empiric Knowledge of Human Nutrition; Analytic Tables of Foodstuffs; Diet Lists and Rules for Infant Feeding and for Feeding in Various Diseases. By A. L. Benedict, M. D., Buffalo, member of American Academy of Medicine, and of American Gastroenterological Association, etc. Published by C. V. Mosby Medical Book and Publishing Company, St. Louis, Mo. Cloth, \$3.00.

This is a very satisfactory and practical little work, which is more than may be said of all works on this subject on the market.

It presents the general principles of dietetics in a clear and logical manner, giving good scientific "reasons why," but not involving the reader in mazes of chemical formulae and discussions of new and strange ferments. We like the way it is arranged and believe that it will strongly appeal to the general practitioner.

We only regret that the author seems to think that the chewing of gum indirectly stimulates gastric secretion (p. 112) and thus gives some excuse for this great American bad habit. We thought Pawlow laid this ghost a few years ago and demonstrated the falsity of this idea.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by H. R. M. Landis, M. D., Assistant Physician to the Out-Patient Department of the Jefferson Medical College Hospital. June, 1908. Lea & Febiger, Philadelphia and New York. \$6.00 per annum.

The second number of Volume X of Progressive Medicine contains a great deal of interesting material. Coley discusses the surgical aspects of the various forms of hernia, reviewing the technic in detail of new methods, and quoting widely from any interesting reports of statistics and individual cases.

Footé reviews the recent work on the surgery of the abdomen in general. This wide field is discriminatingly discussed; of especial interest is the

description of the methods of wide resection of the large intestine in malignant disease.

Clark treats the subject of gynecology and exhaustively considers the topic with which he is so thoroughly conversant—cancer of the uterus, treating especially of etiology, prophylaxis and treatment.

Gonorrhea in the female, malpositions of the uterus, tubal pregnancy and gynecological operations should also be mentioned as being the subjects of excellent reviews.

Stengel's article on pernicious anemia shows the narrowing field of idiopathic diseases as means of diagnosis are perfected. The blood findings in other anemias are discussed and compared, and several advances in treatment are noted.

Diabetes and gout are briefly discussed, but little of importance having developed in the past year. He treats further of the latest contributions to exophthalmic goiter and myxedema, giving the views as to the etiology and a resume of the symptoms and treatment.

Under ophthalmology, Jackson considers the lesions of the conjunctivae, treating of the new local reactions for general disorders and of local infections of that structure followed by general discussions of infections and other pathologic conditions of other parts of the eye, of special interest to ophthalmologists.

MODERN MEDICINE, ITS THEORY AND PRACTICE. In original contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England; formerly professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume IV, just ready. Price per volume: Cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$7.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Volume IV of Modern Medicine is of the same high order of merit as were the volumes which preceded it. The work covers the diseases of the circulatory system and of the blood, including the spleen, thymus and lymph glands.

Part 1 consists of thirteen chapters, all of the various diseases of the heart and blood vessels, and is probably the most complete and modern work on these subjects to be had. Of this part of the work the chapters on diseases of the valves of the heart, insufficiency and dilation of the heart, and diseases of the arteries seem to deserve special mention.

The last chapter of part 1, the diseases of the lymphatic vessels, contains much new and interesting information upon this heretofore somewhat neglected subject.

Part 2. Diseases of the blood, especially the chapter on the general pathology of the blood forming organs, in itself makes this volume one of great value to the medical world. The entire subject of the blood is covered in a most satisfactory manner, a proper estimate being placed upon the various theories which have been advanced in recent years and the most practical conclusions drawn.

Part 3, comprising diseases of the spleen, thymus and lymphatic glands presents these subjects in a most practical manner and is especially satisfactory in its method of dealing with diagnosis and pathology.

The contributors to this volume may each be justly regarded as an authority upon the subject discussed. This list of contributors is one more proof of the ability of the editor to select the right man for the right place.

The volume in its entirety is deserving of praise, and will be found useful as a reference work to every member of the medical profession no matter whether specialist or general practitioner.

"LEST WE FORGET."

"Shac is not the only 'patent medicine' put on the market by Frederick Stearns & Co. Just as extensively advertised—and in the same mediums, the street cars—are Zymole Trokeys, 'for husky throats.' Then there is Pam, for the dyspeptic, a 'tiny tablet of wonderful power,' of which the modest statement is made that 'every ferment of the digestive tract that is available is used in these tablets, fitting them for use in all kinds of indigestion.' Surely, with such drugs at their command, dyspepsia need give physicians no further cause for worry!"—Dept. of Pharmacology, J. A. M. A., July, 1908.

UNPAID ADVERTISING.

"The frequent appearance of the physician's name in the daily press, especially when in connection with his cases, is advertising in every sense of the word. It is true that this frequently occurs without the doctor's knowledge or consent, but it is seldom discouraged, as it appears only in successful cases."—Editorial, Vermont Medical Monthly.

COUNTY SOCIETIES

FIRST DISTRICT

Adams County Medical Society met Wednesday, August 26, 1908, at West Union. Program was as follows:

Morning Session, 11 a. m.—"Report of a Case of Hemorrhoids," J. M. Lockhart, Eckmansville, O.; 12 o'clock, dinner at Florentine hotel.

Afternoon Session, 1:15 p. m.—"Diagnosis and Treatment of Pulmonary Tuberculosis," R. Y. Littleton, Rome; "Anatomy of the Skin," D. C. Coleman, West Union; "Dermatitis Venenata," J. W. Guthrie, Manchester; clinical reports.

SECOND DISTRICT

On Thursday, August 13, the Darke County Medical Society entertained the Randolph County Medical Society of Indiana at Greenville, Ohio, holding a joint meeting for the reading of papers in the morning and afternoon, and acting as hosts at a noon-day dinner. Thus matters of scientific interest were united with social intercourse in a way which pleased and benefited everybody present. A large attendance was evidence of the appreciation felt.

The program was as follows: "Some Excesses in Surgical Cleanliness," by Maynard Austin of Anderson, Indiana. The essayist drew attention to some inconsistencies in technic of some operators and the tendency to overdo matters of others, with illustrations.

"Medical Legislation—Past and Present," by D. R. Silver, President of the Ohio State Medical Association, Sidney. The speaker reviewed the legislative power in the past and referred to some that is needed in the future, and some that must be opposed. He also made suggestions as to ways and means for successfully favoring or defeating proposed legislation. His address was listened to with great interest and approbation.

"Importance of Exploratory Operation in Some Obscure Diseases of the Stomach," C. A. L. Reed, Cincinnati. Dr. Reed depicted several cases coming under his observation showing the necessity in selected cases of performing an exploratory celiotomy. He took a conservative stand, and while urging that all proper means of diagnosis be first employed, advised the need in some cases of this operation before too much time should be lost. In the discussion, J. H. J. Upham of Columbus stated that the term "exploratory" was often an unfortunate one, and its use made it difficult to obtain consent to a necessary oper-

ation; he thought it justifiable and advisable in some cases, but urged the importance of endeavoring to make a proper diagnosis before operating. Robert Carothers of Cincinnati spoke of the etiology and pathology of the conditions described by the essayist.

"The Treatment of Hemorrhoids by Injection," by Wells Teachnor of Columbus. The essayist mentioned the measures in vogue for treatment of hemorrhoids, described the origin of the injection method, and, after emphasizing the restrictions of this plan, picturing the selected cases where it is properly employed, he gave in detail the technic as carried out by himself with great success.

At the dinner E. C. Rynard, of Union City, Ind., acted as toastmaster, being presented by the president, J. E. Monger, of Gettysburg. The following after dinner speeches were delivered: "The Doctor in Politics," C. A. L. Reed, Cincinnati; "Hash," G. Rynard, Union City, Ind.; "The Education of the Public in Medical Matters," Robert Carothers, Cincinnati; "Any Old Thing," Brooks F. Beebe, Cincinnati; "THE JOURNAL," J. H. J. Upham, Columbus.

Among the Ohio guests from without the county were the State President, D. R. Silver, of Sidney; C. A. L. Reed, Brooks F. Beebe, Robert Carothers, Cincinnati; Horace Bonner, Dayton; Wells Teachnor and the State Secretary, J. H. J. Upham, of Columbus.

The meeting was a very successful one.

FOURTH DISTRICT

The Wood County Medical Society met at Perrysburg August 19, with about fifty physicians present. Reminiscences of the practice of medicine forty years ago was the chief feature of the program.

The program was as follows: "The Medicine of Forty Years Ago," by J. C. Lincoln, of Bowling Green; "The Surgery of Forty Years Ago," J. H. Rheinfrank, of Perrysburg; "The Obstetrics of Forty Years Ago," W. H. Tuller, Bowling Green; "How We Bled Them in the Sixties," C. P. Jones, North Baltimore; "The Old Black Swamp," J. D. Whittaker, Perrysburg; "Early Medical Education," S. M. Cook, Weston; "When Diphtheria Was King," Dr. Henry, North Baltimore; "Diagnostic Methods of Years Ago," I. N. Maunhardt, Custer; "The Old Maumee Valley Medical Society," I. S. Bowers, Perrysburg.

SIXTH DISTRICT

The Union Medical Association of the Sixth Councilor District held its regular August meeting at Youngstown on the 11th. The following program was carried out, all the members scheduled being present except Dr. Waggoner, whose paper was sent in and read by proxy in regular order. The papers were more than usually meritorious and were discussed as fully as the time would allow. The Secretary of State was represented by Dr. Watkins, the State Registrar, who gave an interesting address on the new vital statistics law, which was very attentively listened to, and was well received aside from his statement that the Secretary of the State Board of Health is entitled to the entire credit for securing the passage of this law. This claim was quietly resented by many of the physicians present, who knew that the medical profession of the state and the State Medical Association had favored and worked for the passage of such a law for many years, and that their interest and activity could not be decently unless ignorantly ignored.

The meeting was held in the Elk's club rooms, and the luncheon was served in the same building. The next meeting will be held in Akron on the second Tuesday in November.

The excellent paper of John H. Lowman, of Cleveland, contributed greatly to the eminent success of a meeting which was very good in its other features. The members were much pleased to be permitted again to greet Brooks F. Beebe, the chairman of the Council, who graced the occasion by his presence and enlivened the proceedings by his words. The society paid Dr. Beebe the rare compliment of unanimously and enthusiastically re-electing him to honorary membership in the society.

The Doctor's Outing Club of Stark county had its annual outing at New Berlin on July 30. The dinner prepared by the local ladies and served in the grove was greatly enjoyed and will be long remembered on account of the great plenty of good things as well as the excellent quality of everything. It was no doubt a gorgeous feast for some of the younger doctors who have not yet learned to "eat with their heads."

President Silver was billed for the feast and a speech, and it was hoped that his enthusiasm would make it easy to persuade him to umpire the game of baseball which was to follow. Unavoidably Dr. Silver could not be there, but was represented by a very interesting and important letter, which was read by the president of the club. In the absence of the President of the State

Association, Dr. Marchand, the president of the club, greatly mitigated the disappointment of the assembly by uncorking a fresh reservoir of eloquent and effervescent speech. He then ran the "slate" for election of officers through before any opposition that might have been contemplated could discover "where it was at." Dr. Zinniger was elected president and Dr. Kahlor secretary, and better selections could hardly have been made by taking longer time for deliberation and "log rolling." At any rate, it is doubtful whether better results have been looked for, owing to the prevailing metabolic torpor. The accounts were made to look all right by a number of the members "chipping in." The club came out even, if not even a little better. There was a large and jolly delegation from Akron in attendance, and they manifested their usual delight in the opportunity to get a meal in Stark county by letting out a few notches in their belts.

The game of baseball was precipitated before the torpor of repletion had worn off. This was announced as between the doctors and the lawyers. The jejune appearance of most of the lawyers, owing to their abstemious preparation, promised them an advantage over the surfeited doctors from the startoff. Yet, if the lawyers had not made undue use of writs of mandamus, injunction and habeas corpus, the new experience (winning a game) would not have been theirs. The doctors were so enmeshed in unfamiliar technicalities that a victory was delivered to the lawyers at the end of the seventh pain—just about the time the doctors were beginning to transform fried chicken and lobster salad into muscular energy and mental alertness. The Blackstone outfit was immensely elated, the experience being so very unique.

NINTH DISTRICT

The Pike County Medical Society met in regular session at Waverly, Ohio, Monday, August 3, at 1 p. m. J. L. McAllister, of Beaver, read a very instructive paper on "Pertussis," which was discussed by all the members present. Alfred Cole, of Cincinnati, was present and presented a specimen of Parovarian cyst, with a report of the case; also by request gave a very instructive lecture on differential diagnosis of tumors.

The Lawrence County Medical Society met in regular session July 30 at Ironton, with a splendid attendance of members. Visitors present were Drs. Clark, Fitch and Rathburn, of Russell, Ky.

Dr. Clark, of Russell, Ky., read a timely paper on "Diagnosis of Typhoid Fever, and W. W. Lynd spoke on the treatment of the same. Both papers were well received and liberally discussed by the society.

O. U. O'Neill was elected secretary of the society, H. J. Brown resigning to accept a position at Red Jacket, W. Va.

NEWS NOTES

Cincinnati had a death rate of 16.88 per 1000 for the year 1907.

Charles R. Fishel has removed from Lilly Chapel to Thurston.

Warren G. Murray, Dayton, has returned after nine months in Europe.

The death rate is 17.8, and the birth rate 26.4 per 1000 in New York State.

It is announced that the McKinley home, Canton, is to become a Catholic hospital.

Williard C. Rank, Newark, is reported well after a serious illness with septicemia.

Rufus B. Hall is spending his summer vacation in Yellowstone Park and in the Northwest.

Adolph Meyer was recently elected director of the psychiatric clinic in the Johns Hopkins University.

During the past year there were 835 women studying medicine, or 3.7 per cent. of all medical students.

O. R. Mickelthwait, Portsmouth, has been appointed surgeon of the Baltimore and Ohio Southwestern Railway.

The contract for the addition to Grant Hospital, Columbus, has been let to John Heckert, whose bid was \$125,000.

James W. Hughey, Washington C. H., is convalescing after an operation at the Johns Hopkins Hospital, Baltimore.

The St. Luke's Hospital, Cleveland, was formally opened July 19. The building has forty-one private rooms, several wards and cost \$150,000.

A woman was recently refused admission to the Royal College of Surgeons. The vote was against either membership or fellowship in the college.

The tenth annual meeting of the American Hospital Association will be held in the King Edward Hotel, Toronto, Ont., September 29 to October 2

The death rate in Panama and the Canal Zone for the first six months of 1908 was 14.59 for the white employes and 8.82 per 1000 for the colored employes.

Under the will of the late James C. Culbertson, Cincinnati, his wife is given his interest in The Lancet-Clinic, his stocks, bonds and personal property. The estate is appraised at \$20,000.

At the annual meeting of the British Medical Association, held at Sheffield July 27-31, the honorary degree of Doctor of Science of the University of Sheffield was conferred upon John B. Murphy, of Chicago.

C. O. Probst, secretary of the State Board of Health, and Frank L. Watkins, the newly appointed registrar of vital statistics, attended the Winnipeg meeting of the American Public Health Association, August 25-28.

The provisional program on "Clinical Study and Therapy of Tuberculosis, Sanatoria, Hospitals and Dispensaries" of the International Congress on Tuberculosis appeared in the August 8 number of The Journal of A. M. A.

Formal orders are being prepared at the Navy Department organizing a corps of female nurses for the navy. A woman physician will be chief of the corps, at a salary of \$1800 a year, and 100 nurses will be engaged, with salaries of from \$45 to \$75 a month.

A. D. Spence, convicted of arson at Lebanon and sentenced to the Ohio penitentiary last fall for two years, was pardoned by Governor Harris August 15. The pardon was granted on the condition that Dr. Spence abstain from the use of intoxicating liquors.

The New York Academy of Medicine announces the sum of \$1000 (the Gibbs Memorial prize) for the best essay in competition on "The Etiology, Pathology and Treatment of the Diseases of the Kidney." The essay must be presented on or before October 1, 1909.

The library of the University of Missouri has made arrangements whereby members of the State Medical Association may have access to books in the library. On making application, books will be sent to the applicant, who has to pay the charges of transportation.

Asa B. Isham and Louis Schwab, medical directors of the City Hospital, Cincinnati, intend to open a Pasteur institute in connection with the hospital laboratory, to be in charge of Alfred Cole. It is the intention of the management to treat residents of Cincinnati without expense, but

a fee of \$100 will be charged non-residents, the amount to be turned over to the hospital fund.

Charles A. L. Reed, Cincinnati, has had conferred upon him the order of chevalier of the Legion of Honor by the government of France. He is the recipient of numerous congratulatory telegrams and letters from his numerous friends, some of them expressing the belief that still greater honors await him. His boom for the United States Senate seems to be progressing nicely. There is a well authenticated story afloat that the doctor's replies to his many congratulatory letters were dated the day before the congratulations were received. Query. Has the doctor brought politics down to such a fine point that he knows just who is going to write him a congratulation and has his reply ready to fire back at him?

IMPORTANT.

By a recent decision of the Postmaster General packages of medicine bearing written directions for taking are subject to the first class rate of postage on the ground that written directions are not permissible additions to fourth class mail matter under the law.

THE TENTH DISTRICT MEETING.

The fifth annual meeting of the Tenth District Medical Association will be held in Circleville, Pickaway county, on Tuesday, October 9, and from the preparations made by the local committee a very enjoyable and profitable time is assured to the members and guests.

The program had not been entirely arranged at the time of going to press, but the committee assert that it will be of considerable interest. The main scientific papers will be read at the afternoon session, after which the members and guests are invited to the annual Circleville pumpkin show, which is a unique and historic affair in Pickaway county and promises much in the way of diversion.

In the evening it is planned to have a popular meeting, to be addressed by Dr. J. N. McCormack, of Kentucky. The object of this is to emphasize upon the public and the medical profession their mutual dependence and gain their co-operation in matters affecting the general welfare. A large and enthusiastic attendance is expected. Circleville is very accessible, being easily reached by interurban trolley cars from Columbus or by the N. & W. railroad.

COUNTY HOSPITAL FOR TUBERCULARS ABOUT COMPLETED.

During the first week in September the Franklin County Tuberculosis Home was dedicated for

the benefit of all tubercular patients, whether they be indigent or wealthy.

When the building was first contemplated it was believed that none but indigent persons could be admitted. However, Infirmary Director S. W. Henry states that paid patients may be received.

The home as constructed consists of two wings, leaving room in the center for a main building, which will eventually be erected. Provisions are made for the entertainment of thirty-two patients. The south exposure is practically all made of glass, and windows are so constructed that patients may be taken to the porch without being removed from their beds, the beds being wheeled out through the movable glass side of the building.

Protection is also furnished so that no matter how inclement the weather, the patients will have the full benefit of the open air treatment.

Franklin county is the first county in the state to erect a home of this kind. The home was made possible through the efforts of the Columbus Tuberculosis Society. The recent Legislature passed a bill making it necessary for each county to provide homes for tubercular patients. Mr. Henry stated recently that he had received an application from Ross county for the admission of a patient. The law provides that in the event a county does not build a home it may make arrangements with other counties to take care of its patients. No action, of course, was taken on the application from Ross county, inasmuch as the home is but just completed, but it is anticipated by the infirmary directors that much revenue will be derived from foreign patients.

The home will be under the supervision of the infirmary directors. Their actions, however, will be subject to the rules and regulations of the State Board of Health.—Ohio State Journal.

The thirty-fifth annual meeting of the Northern Tri-State Medical Association was held Tuesday, July 14, in the assembly room of the Oliver Hotel, South Bend, Ind. The following program was given:

Forenoon Session.—"Treatment of Puerperal Eclampsia," Theo. F. Wood, Angola, Ind. Discussion opened by I. J. Becknell, Goshen, Ind.; C. M. Dutt, Hudson, Mich., and H. J. Montgomery, South Bend, Ind.

"Osteomyelitis," C. A. Daugherty, South Bend, Ind. Discussion opened by D. J. Loring, Valparaiso, Ind.; B. F. Kuhn, Elkhart, Ind., and H. K. Lemon, Goshen, Ind.

"Ulcerative and Purulent Cystitis: Surgical Treatment of the Same; Report of Cases," C. M. Harpster, Toledo, Ohio. Discussion opened by

Maurice I. Rosenthal, Fort Wayne, Ind.; Charles Stultz, South Bend, Ind., and A. C. McDonald, Warsaw, Ind.

Afternoon Session.—"Phosphaturia," L. Park Drayer, Fort Wayne, Ind. Discussion opened by A. C. Yoder, Goshen, Ind.; C. R. Kuhn, Detroit, Mich., and B. F. Hoy, Syracuse, Ind.

"Mastoid Symptomatology and Treatment," Albert H. Andrews, Chicago Ill. Discussion opened by Kent K. Wheelock, Fort Wayne, Ind.; Emil Amburg, Detroit, Mich., and W. A. Hager, South Bend, Ind.

"The Future Hygiene," J. N. Hurty, Indianapolis, Ind. Discussion opened by J. L. Gilbert, Kendallville, Ind.; F. W. Black, Ligonier, Ind., and W. H. Baldwin, Quincy, Mich.

"Nephro-Enteroptosis: Etiology and Treatment," H. W. Longyear, Detroit, Mich. Discussion opened by Miles F. Porter, Fort Wayne, Ind.; W. J. Gillette, Toledo, Ohio, and S. C. Loring, Plymouth, Ind.

"Conjunctivitis," Walter R. Parker, Detroit, Mich. Discussion opened by E. J. Lent, South Bend, Ind.; Henry W. Eby, Goshen, Ind., and Jas. A. Work, Sr., Elkhart, Ind. Dr. Work was supposed to show, from the standpoint of the generalist, cases caused by a condition of lithiasis and auto-intoxication.

"Traumatic Neuroses, with Special Reference to Ligation," Lewis Miller, Toledo, Ohio. Discussion opened by H. D. Wood, Angola, Ind.; C. W. Frink, Elkhart, Ind., and D. L. Miller, Goshen, Ind.

Evening Session.—"The Present Status of Some Ophthalmic Means of General Diagnosis," Casey A. Wood, Chicago.

DEATHS

Thomas W. Long, Ohio Medical University, Columbus, '93, a practitioner of Byesville, died from a streptococcic infection of the finger July 30, aged forty-seven.

Ezra H. Tobias, Ohio Medical University, Columbus, '98, physician to the Board of Health of Bowling Green, died suddenly August 2, aged thirty-nine.

Frank D. Kraft, Homeopathic Medical College, St. Louis, '86, professor of materia medica in the Cleveland Homeopathic Medical College, died at the home of his brother in St. Louis from heart disease July 19, aged fifty-seven.

Frederick Fliedner, University of Wooster, Cleveland, '72, died at his home in Cleveland July 12 from tuberculosis, aged sixty-four.

John W. Thatcher, Louisville Medical College, '69, died at his home in Marion July 16 from paralysis, aged seventy-eight.

John D. Mulhane, College of Physicians and Surgeons, Baltimore, '83, of Steubenville, died in the State Hospital, Athens, July 15, from tuberculosis, aged fifty.

Alfred D. Becket, of Limaville, died at the Alliance Hospital June 28 from septicemia following the bite of a rat, aged fifty-three.

Frederick Habermehl, of Clarington, died from paralysis July 8, aged seventy-three.

A. L. Snyder, Eclectic Medical Institute, Cincinnati, '60, was instantly killed in a runaway accident at his home in Bryan August 14, aged eighty.

William H. Webster, Pulte Medical College, Cincinnati, '94, of Dayton, died August 10 from organic heart trouble, aged thirty-nine.

Lewis C. Anderson, Miami Medical College, Cincinnati, '74, of Greenville, died from apoplexy July 24, aged fifty-eight.

Aaron T. Miller, Cincinnati College of Medicine and Surgery, '79, formerly of Shanesville, died in Colfax, Wash., August 7 from septicemia, aged fifty-three.

Lawrence H. Brundage, Medical College of Ohio, Cincinnati, '90, died suddenly from heart disease at his home in Xenia August 1, aged forty-two.

MARRIAGES

Jacob Silbermann to Miss Jessie Stern, both of Cleveland, June 28.

Frank Solier, Bryan, to Miss Louise Harris, of Syracuse, N. Y., March 19.

Austin C. Brant, Canton, to Miss Mary Garde, of Clifton, Cincinnati, June 15.

Robert B. Drury, Columbus, to Miss Elinor Westcott, of Wilkesbarre, Pa., July 15.

Samuel C. Niemann to Miss Carrie M. Frank, both of Dayton, August 6.

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No. 10

ORIGINAL ARTICLES

THE VALUE OF GASTRIC LAVAGE.

JOSEPH EICHBERG, M. D.,
Cincinnati.

Since its introduction by Kussmaul a little more than fifty years ago, lavage of the stomach has rightly maintained itself as one of the most important additions to our methods of investigation and treatment. It has both a diagnostic and therapeutic value. In the way of diagnosis it may be said to underlie the whole modern system of discriminating between the various diseases of the stomach. As a therapeutic aid it is invaluable.

Yet the practice of gastric lavage is by almost general consent conceded to be the particular prerogative of the specialist in disorders of the stomach. Why should this be so? If there were any great technical skill required in the performance of the maneuver, if it necessitated especially elaborate instruments, if the performance were ordinarily attended with the slightest danger, if there were any great prejudice to be overcome on the part of the patient, this might be easily understood. As it is, we cannot but wonder that the profession as a whole should still be so reluctant to take advantage of a method at once simple and satisfactory.

The difficulty of performing gastric lavage is very much less than the ordinary extraction of a test meal. In lavage, the tube is merely inserted, the water or astringent or antiseptic fluid is allowed to flow into the stomach, and then promptly removed by siphoning. In the withdrawal of stomach contents after a test meal the procedure requires more time and is likely to be more disagreeable to the patient, for here the effort is to be made to have the stomach empty itself by its own contraction, or to secure its contents by gentle aspiration, for which the bulb in the tube is a most important addition. The washing of the stomach is, after the first or second attempt,

rarely disagreeable. It is painless, easily and promptly executed, and is productive of satisfactory results. Why is it not more generally employed?

The profession must, I think, be held guilty for failure in this regard. I can think of several answers as to why lavage is not more generally employed. None constitutes a valid objection. I would not willingly put myself in the position of a censor of my brethren, but we are here among ourselves. What is said is, of course, strictly confidential; and if we can by honest statement help one another the prime object of these meetings is accomplished.

The first difficulty, then, in the way of a wider employment of gastric lavage is the doctor. He fears to suggest anything that may be repulsive or disagreeable to the patient, lest it affect his standing to his patient or possibly lead to a change of doctors. He does not avail himself of its necessary aid in diagnosis, and, not having all the facts in hand, he does not appreciate the true nature of his case, so that he naturally does not require the tube as an aid to treatment. Against this objection there is only one argument. Lavage is disagreeable beyond any doubt, but it is so for the first time only, so long as the patient has not through his doctor received the confidence necessary to carry him along to its farther employment. The patient is often given a very wrong impression by the exaggerated idea of the physician regarding the difficulty of its performance. If the doctor is sufficiently sure of himself to treat the matter lightly, the patient will promptly fall into line.

May I be pardoned for doing what seems like elementary work in making a hasty allusion to the technique? For this is after all the key to the problem. If the doctor can properly instruct the patient, the battle is won in the first attempt, and everything depends upon the first attempt. Failure here means an instant and powerful prejudice to be overcome at a later time. A successful performance leaves the patient with

the equally strong conviction that, having done it properly once, there is no reason why he should not do it again. The following steps are to my mind of importance:

First.—The assurance to the patient that he can and will succeed, though the sensation will be slightly disagreeable.

Second.—The injunction not to hold his breath when the tube enters the pharynx, but to close the teeth gently on the tube, take a long, full breath, let it out again and repeat this maneuver two or three times.

Third.—To keep the head bent slightly forward (the patient being seated), so that the tube shall follow the posterior wall of the pharynx, thereby avoiding the irritation of the epiglottis or the entrance to the larynx.

Fourth.—To use a tube of moderately large size and of a certain rigidity. The tube is often made too soft at the time of insertion by being placed in hot water. Cold water is greatly to be preferred.

Fifth.—To use no oily lubricant. Cold water, with the addition of the normal salivary secretion, is quite sufficient for this purpose.

Sixth.—To push the tube gently but quickly as soon as the tip has passed the pharynx until it reaches the stomach.

Particularly important is it to enjoin the patient from putting up his hands or grasping the tube at any stage of the performance. Not the least important part of the lesson for him is the demonstration that the tube can be properly inserted and that he can tolerate its presence for some minutes without particular discomfort.

Now, the second obstacle to the more general employment of the lavage is found in the mistaken notion that the tube is necessarily a doctor's instrument—as it is for diagnostic purposes—and that its use always necessitates the doctor's presence and help. There can be no more mistaken concept. The stomach tube is for the patient and should ordinarily be left in his care, with proper instructions for its employment by the patient. Sometimes it is inconvenient for the doctor to perform lavage at his office; oftentimes it would be burdensome, perhaps impossible, to see the patient with the necessary regularity at his own home; but nothing stands in the way of teaching the patient to go through the necessary manipulation for himself. With a little ingenuity the whole thing can be managed by one person. I have so done it for myself. With the assistance of one person of sufficient intelligence to pour water from a pitcher it can be readily accomplished by those devoid of all ingenuity.

All sound therapeutic effort is based on the doctrine of removing the cause of the disturbance. In the old text-books one of the favorite aphorisms is *sublata causa, tollitur effectus* (the cause being removed, the effect ceases). The practice of giving emetics under certain circumstances was not so far wrong in principle, as it was disagreeable in practice. The needless and futile retching was often debilitating and at times dangerous.

Considerable discussion has arisen as to the time of day when washing of the stomach would secure the best results. The question indeed is not yet settled, since men of eminence may be found upon both sides. The object of the lavage is to have the stomach clean, to remove deleterious principles—fungi, spores, bacteria, chemically irritating substances, mucus—to unburden the weight which is constantly dragging on the stomach attachments, and to freshen and stimulate the mucous membrane to a proper point of secretory activity. If, as is generally recommended, we have our lavage in the early morning, we start the day with a clean organ, it is true, but we must look forward to a gradually increasing accumulation and distention for the next twenty-four hours. If, on the other hand, we have the lavage before the evening meal, generally the most substantial of the day, I think we shall accomplish more. We empty the stomach of the undigested residue of breakfast and luncheon; we prepare the stomach for the exercise of its office at a time of day when it will not only receive its principal work, but also when all outside disturbing causes are no longer operative—the fret, the worry, the business pressure of the day are done. The coming meal can be taken quietly, slowly and with a sense of comfort otherwise wanting. Not only that, the distention of the stomach from the earlier accumulation is relieved by lavage, and the stomach allowed to partially regain its normal size before receiving its next charge. In the morning lavage the entire food accumulation for the preceding day goes to bed with the patient, and the atony is increased. With the evening lavage the distension cannot attain the same dimension, the dragging of the stomach is less, and the muscular fibers are kept at a better state of functional activity.

There is an additional reason for the evening lavage, in that the patient, with his incompletely emptied stomach, has a much longer interval before his next meal—from evening to morning—so that, though the functional activity of the organ be below par, the added time may suffice for its completely emptying itself. Lastly, the

emptying of the stomach is greatly assisted by the recumbent position through the hours of the night, when the body is in the horizontal position, frequently upon the right side, so that the aid of gravity can be and is of great assistance in the mechanical clearing of the damaged viscus. With the aid of position and the long interval of the night we shall in the majority of cases find the stomach perfectly empty in the morning and therefore not in position to require lavage at this time. A notable exception is furnished by those cases in which the fasting stomach is regularly found to contain a considerable quantity of gastric secretion in the early morning or where bile is present. Here the morning lavage becomes necessary.

Any condition that implies the undue retention of food products in the stomach becomes an indication for gastric lavage. For what does such retention imply? It means the maintenance of a culture oven for fungi and bacteria at the proper temperature, with plenty of nutritive media to give opportunity for abundant growth. *Sarcinæ*, bacteria, micro-organisms of all kinds, yeast plants—all grow quickly in this retained mixture. Aside from the distention of the stomach, the mechanical dragging on its attachments by reason of the abnormal weight and the fact that it is never wholly emptied, the food products that arrive at the next meal find what should be a laboratory, clean and ready for their reception, little better than a chamber of fermentation and putrefaction. It is certain that instead of being split up by the digestive ferments, so as to be properly prepared for absorption and assimilation, they too will undergo the abnormal disintegration by the foreign agents of decomposition. We may recognize the presence of such distention of the stomach as secondary to obstruction by other physical signs, but the degree of retention of food products can only be estimated by the stomach tube, which becomes again an element of diagnosis and perhaps of cure.

Retention of food products with distention of the stomach and the necessary resulting imperfect digestion may arise from causes leading to mechanical narrowing of the pylorus, from atony of the wall, from the pressure of growths or bands originating outside of the stomach, but so located as to make pressure at or near the pylorus, from traction on the stomach by bands and adhesions along the greater curvature, from fixation of the dependent portion or from acute conditions arising within the abdomen, whereby the muscular coat of the hollow viscera is paralyzed either wholly or in part.

Of other than mechanical causes the one re-

quiring most frequent attention is gastric ulcer, with its subsequent cicatrization. Grave objections have been raised against the use of the stomach tube in any case of ulcer, because of the danger of mechanically irritating the wounded surface or even of actually provoking a perforation by literally thrusting the end of the tube through the thin protecting serous membrane, which constitutes the only protecting barrier. One can conceive of the possibility of such an accident; its actual occurrence is, however, problematical. More reasonable is the objection that the efforts of gagging induced by the introduction or pressure of the tube, with the violent consecutive contraction of the stomach itself, may damage the ulcerated tissue, detach adhesions or possibly prepare the way for hemorrhage. Making full allowance, however, for all these things, I am convinced that lavage is an important factor in the treatment of gastric ulcer. If nothing else is accomplished, we remove from the stomach the hyper-acid fluid, which must of necessity irritate the ulcer and doubtless is an important factor in its extension. The regular emptying of the stomach contents is also an invaluable aid in preventing the development of any considerable degree of dilatation from spasm of the muscular sphincter, which usually occurs in ulcers, even where there is no cicatricial narrowing of the pylorus. I have in mind a case, whose history covers more than twenty years, where the tube has been used almost daily. The ulcer has presented the common history of periods of marked improvement, followed by evident fresh ulceration. It has come to operation for a gastro-enterostomy, with only temporary relief; but at the time of operation it was noted that the stomach presented little if any distension, a condition which the surgeon as well as the physician were inclined to attribute to the regular performance of lavage.

Coupled with the cleansing, lavage may be utilized in gastric ulcer for the introduction of astringent solutions, which have a direct stimulating action on the ulcerated surface and thus promote the healing. The fact that the fluid is promptly withdrawn after producing its local effect and that danger of toxic absorption is thus avoided permits of the use of metallic astringents in large amounts. This is especially true of the silver salts. Antiseptics may be similarly employed. Lavage may be combined with the deposit of bismuth in large amounts into the stomach so as to mechanically cover the ulcerated surface after the method of Fleiner. In certain cases of ulcer the taking of food becomes very difficult, occasionally because of persistent nau-

sea, sometimes because of the mental association of pain following the entry of anything into the stomach. Feeding the patient through the tube immediately after lavage, has been successfully carried out in many cases of this kind. What I should particularly wish to emphasize is that the use of lavage in gastric ulcer is not to be made dependent upon one special feature, such as vomiting, pain, distention or excessive acidity, but that the existence of the ulcer is in itself sufficient indication for the daily systematic resort to its use. The overcoming of the hyperacidity, though but temporary, is of the greatest consequence, and the incidental effect of retarding or preventing dilatation is hardly to be considered of secondary importance.

The mention of dilatation furnishes us the second class of cases in which lavage is urgently indicated—namely, in all cases of acute or chronic dilatation. Cases of acute dilatation are comparatively rare and would seem, in the light of later research, to be connected with the development in the body of certain organic poisons related to B-oxy-butyric acid and acetone. The prompt removal from the stomach of the transudate containing the toxic substance suggests itself as the only rational treatment. Chronic dilatation arising from the cicatrix of an ulcer, from a malignant growth, or from whatever cause, with stagnation and decomposition of food products, requires lavage of the stomach to free the organ from its putrefying contents. This is particularly true of dilatation from atony. Here the complete emptying of the viscus constitutes a sort of gastric gymnastics, by which the tone of the muscular coat is maintained. The washing of the stomach may be combined with the gastric douche, whereby some bitter tonic infusion is used to spray the mucous membrane, acting both as a mechanical and chemical stimulant. The stomach, by means of lavage, is enabled to thoroughly empty itself at least once in the twenty-four hours, while at the same time it is prepared for the next meal. It may be stated that cold water, pure or medicated, should not be used for lavage. The solution should always be tepid, or may be warmer.

In cases of organic stricture, not malignant, occasioned by narrowing from within or by pressure and traction from without, washing of the stomach can but constitute a temporary makeshift, if the degree of obstruction be considerable. Such cases require operative relief. But until the time of operation (and the patient is unaccountably more deliberate in acting upon this suggestion than the doctor in giving it)—until the time when a new channel shall be established

between stomach and intestine, the regular performance of lavage will contribute greatly to the patient's comfort and will certainly put the stomach in better shape for the time of operation. I have now under observation a patient who has had two attacks of vomiting of blood, separated by an interval of two years. The second attack occurred only three months ago. The obstruction in this case is very great. The stomach will be found to contain practically all the breakfast seven hours after its ingestion. There is constant fermentation, so that when the stomach contents are allowed to stand a layer of yeast promptly rises to the surface. *Sarcinae* abound. The splashing can be heard and felt two and a half inches below the umbilicus. Daily lavage has made this patient very comfortable. His color has improved, his sense of fatigue has gone, his energy is restored, and the belching, which was incessant, disturbs him but little. Operation will be necessary, beyond any doubt; but, in the meantime, the patient is able to attend to his affairs with some comfort, and surely the outcome will not be prejudiced from the fact that the interior of the stomach has been kept cleaner and more sanitary than would be otherwise possible.

One of the dangers that threaten the patient with chronic dilatation is gastric tetany. I have known this to end fatally. It is fair to assume that this complication depends upon the absorption of some toxic principle, directly dependent on chemical change in the dilated stomach. Regular lavage would obviate this, by cleansing the organ at least once, or, if indicated, twice in the twenty-four hours. Here, too, the question of operation would properly come up for consideration.

In carcinoma of the stomach the same general principles apply as in chronic dilatation, with the more imperative demand for lavage created by the presence of a foul ulceration, which quickly contaminates all the stomach contents. One experience with lavage in a case of this kind will quickly convince the most skeptical. The washing from the stomach often has an odor so offensive that one can hardly remain in the same room with the patient without nausea. Of course lavage here is only palliative, but palliation is the limit of our endeavor in so many cases of this class, and every contributing resource should be placed at the disposal of the patient.

The greatest value of lavage will be found in that class of cases which furnishes the largest contingent of patients suffering with disorders of the stomach, the cases of chronic dyspepsia. The usual lesion here is a chronic gastritis. It

matters little as to the cause of this, whether dependent upon faulty mastication, upon improper preparation or selection of food, upon excesses in eating or drinking, or upon the existence of some organic disease to which the gastritis is secondary; lavage is of all features of the treatment the most important. No other method will so thoroughly stimulate the glandular activity. The mucus, formed in such abundance, is usually easily carried out of the stomach by an alkaline solution, and for astringent purposes nothing has answered so well as a weak solution of silver nitrate. In all but the most severe cases irrigation with warm water answers every purpose.

Cases of chronic gastritis with abundant secretion of viscid mucus derive the most striking benefit from this treatment, though the improvement is not tardy in other cases of this class.

Another indication for gastric lavage is found in the cases of hypersecretion, whether intermittent or continuous. These cases usually rest on a purely nervous basis, and local measures alone will not suffice. Treatment must be directed to the underlying condition, before definite relief can be secured. But a large step in advance can be taken with the regular performance of lavage. It is here that we find the stomach, even in fasting, occupied by a large quantity of hyperacid secretion, particularly in the early morning. Aside from the immediate relief, the use of the tube has in these cases a moral value, not to be underestimated. The mental impression, the necessity for a certain amount of self-control, the submission to discipline all aid in promoting recovery. For the same reason lavage is of value in cases of nervous vomiting, though I would hardly include here the grave forms of anorexia nervosa; but in the milder manifestations, in hysterical rumination, in the declared inability to take food, we frequently secure very prompt results from gastric lavage, followed by the introduction of food through the tube.

The washing of the stomach—which is a less elegant Anglicised way of saying lavage—has its place in a number of acute conditions. Kussmaul himself suggested it as an appropriate expedient in intestinal obstruction—here, too, it acts in a measure mechanically, by relieving the stomach and intestine of the pressure of fluid, partly secretion, partly transudation, which has accumulated above the obstruction. In taking off this weight and distention, the natural efforts at repair of the damages may the more readily be successful; or, if not, we save the aggravation of the condition, consequent upon the constant forcing effort of a large column of liquid, which but wedges the strangulated portion more tightly. In

the main, lavage constitutes in these cases but a valuable makeshift to tide over until the proper time for operation, or until the patient's consent can be secured.

Of more positive, one might well say curative value, is the use of gastric lavage in post-operative ileus; that serious train of symptoms which often follows laparotomy; and is generally ascribed to paralysis of some segment of the bowels, damaged in the necessary operative manipulation, and failing utterly in its duty of peristaltic propulsion. Though no actual obstruction exists in such cases, the effect for the patient is practically the same, seeing that a part of the bowel is impervious, by a passive resistance, and stercoraceous vomiting is of common occurrence. The use of the tube effects the proper cleansing of the stomach, possibly of the duodenum, as there is a reversed peristalsis, which implies an open pylorus; and it also allows of the administration of saline laxatives directly into the stomach, without deglutition, a feature in treatment of the greatest advantage to the patient.

We may also class with the acute conditions the singular cases of acute dilation of the stomach and the recurrent vomiting of children. The pathology of these troubles is not quite clear. For the latter, the association with the presence of acetone and diacetic acid in the urine seems pretty well established; it may be that the former has a similar origin. It is supposed that the presence in the blood of toxic substances acts on the mucous membrane of the stomach to produce abundant transudation, and thus brings about the peculiar symptoms. Lavage assists in the elimination. In the hyper-pyrexia of children, so frequently dependent upon faulty chemical action in the digestive tract, lavage has quickly given relief.

In the acute indigestion resulting from errors of diet, from over-indulgence, from the occurrence of decomposition in food products—the cases of ptomaine poisoning—from the ingestion of corrosive or other poisons, accidentally or with suicidal intent—the emptying of the stomach is a self-evident principle of treatment. Generally, nature attends to this indication unaided; but, where the natural efforts are ineffective, where the time element must be considered, the tube will empty the stomach quickly and safely, if not always pleasantly, thus obeying in the main the old Latin injunction *cito, tuto et jucunde*.

Another indication for lavage is found in multiple erosions of the stomach, a pathologic state often recognized only at autopsy, but which is responsible for a most serious perturbation of health, considerable local distress and occasionally for sudden death from hemorrhage. Here the

use of astringents by irrigation furnishes almost the only means of dealing properly with the ulcerated mucous surface, the condition differing from simple ulcer in the diminutive size, great number and comparative shallowness of the erosions in the mucosa.

Lastly, I come to the most important use of the tube, not strictly for lavage, but for removal of the stomach contents. The proper application of lavage is only possible with the recognition of the state it is desired to control; and a discriminating diagnosis of stomach disorders is perhaps approximately correct, but never satisfactorily made without the data furnished by a proper application of the tube after a test meal. As a diagnostic resource lavage itself helps us to recognize cases of hour-glass contraction, where there is at first the return of the fluid used for irrigation, followed shortly by a fluid of wholly different physical properties. But, in its more general relation, the stomach tube is not to be considered as one of the instruments introduced for a superlative refinement of diagnosis. It is a daily, indispensable accessory in the necessary investigation of stomach disorders; it is the only satisfactory prompt means of ascertaining the actual chemistry of the organ, as far as we know it. I do not believe that every patient should have the stomach tube inserted, because the doctor may be curious about the composition of the gastric juice; but every case in which the symptoms point to the stomach as the seat of primary disturbance, in the absence of contra-indications, such as recent hemorrhage from the stomach, aneurism, severe valvular trouble, with marked dilation, etc., should have a test meal and extraction of the stomach contents for further analysis. The modern surgeon takes the very advanced ground that every pain in the epigastrium is justification for an exploratory laparotomy; that the surgeon may look into the patient's abdomen to see why he should not be operated upon. As between lavage and laparotomy, personally, I should not hesitate. Would you?

A GOOD WAY TO GIVE CASTOR OIL.

"I believe that the following method of giving castor oil should be thoroughly explained to every parent: Wet the spoon before placing oil in it. Hold spoon filled with oil on a piece of ice until thoroughly cold; then give immediately. For older children give oil between two layers of orange juice in a wet glass. Nothing should be given to eat or drink an hour before or an hour after giving castor oil. Keep the patient quiet."—Kilmer, J. A. M. A.

POPLITEAL ANEURYSM—ITS TREATMENT, WITH REPORT OF CASE CURED BY MATAS OPERATION.

CASPER F. HEGNER, M. D.

History influences in a very great degree the trend of our thought and reason. In perusing the accessible literature on the treatment of aneurysm, with especial reference to the popliteal variety, we find it one of the first affections of the human body treated surgically. The phenomena were but imperfectly understood by the early surgeons. Their methods of treatment, however, had a not entirely unreasonable basis. Many of the more recent ideas and theories, surgical and non-surgical, are not new in their entirety. The basal thought seems in part the same, the variance is in the expression or working out of details. The variance is founded upon a more complete understanding of the pathology of the disease.

We find in the literature certain almost forgotten methods of treatment, rediscovered and advanced as entirely new. The claim for originality and priority occasioned in the past, as it has all too frequently in recent times, an estrangement of men and even nations. There can be no such contention in reference to the present brilliant method which stands out pre-eminently as one of the greatest advancements in modern surgery—an operation which robs a very formidable affection of most of its terrors, and is almost certain to be entirely successful. I refer to the Matas operation for cure of aneurysm, an operation that seems insusceptible of improvement.

An aneurysm is a more or less circumscribed lateral or circumferential dilatation of an artery, involving one or all the tunics, the cavity being in more or less direct communication with the lumen of the artery.

Aneurysm of the popliteal artery ranks second among the various vessels affected. It is rather a striking fact that aneurysm is not nearly so common as formerly. Perhaps the improved method of treating syphilis, one of the most common etiological factors, is largely responsible for this welcome state.

Etiology may be divided into predisposing and exciting causes.
Predisposing.

(a) Natural.—A generally weakened arterial system. Cases are not uncommon where they have been multiple. Sir Astley Cooper reports

seven occurring in different vessels of the same individual at the same time. (Lon. Lan., 1864, Vol. I, 245.) Lowe saw four in a man of 27 years. (Med. Gazette, 1862, Vol. II.)

(b) Acquired.—Intemperance in work, especially that requiring long continued and severe strain.

Toxic.

Septic emboli, excesses in alcohol and tobacco.

Lead, syphilis and gout.

Atheroma, arterio sclerosis.

Any condition causing a chronic augmented blood pressure.

Age, 30-50 years, i. e., the active period of life.

Sex, males more common than females.

Climate, sudden diurnal changes (Edinburg Med. Journal, Vol. XXXI, p. 989).

Exciting.

Direct violence such as penetrating wounds or blows.

Indirect violence, sudden severe strain, lifting, sneezing, prolonged and violent muscular effort. In the extremities severe exaggerated movements, such as hyper extension or flexion. Rarely extension of disease from adjacent tissues involving the external coats.

Pathology can be classified as causative and curative.

Causative.—A molecular change or necrobiosis of the cells, in one or all the tunics; secondary deposition of degenerated material—atheromatous, fatty or calcareous—and consequent loss of elasticity, with a weakening of the walls. Finally dilation. Once this stage is reached, the process, unless reparative changes have already set in, tends to increase until rupture takes place. Authorities are numerous advocating one or the other tunics as the site of initial changes. It may begin in any. The above changes would be present in each. Many other theories as to detail have their advocates—i. e., local vaso-motor paralysis, vaso vasorum disease, local lymph exudates between the different coats, and so on through reams of literature. (The above is an abstract of the most generally conceded fundamental pathological changes.)

Curative.—The aneurysm, once formed, has a natural tendency to increase. The weakened area of the vessel walls persists, and no amount of fibrin, laminated or otherwise (which, as is well known, is low grade non-vital tissue), can permanently prevent its spread. Sir John Hunter (L. L., 1866, Vol. II, 519), Ernst Harte and others maintain, and autopsies have verified, that lamination of fibrin within the sac in any amount does not cure aneurysm. It may ameliorate the symptoms and mask the physical signs for a

greater or less period, but does not in and of itself effect a cure. The defect persisting, the process must and will spread until the defect is circumvented or the aneurysm ruptures. This seems to prove almost conclusively that no reparative changes taking place in the damaged area of the vessel wall is sufficient to more than temporarily stay the progress of the disease. Cure is not effected by primary occlusion of the entire aneurysmal sac, but by the occlusion of the supplying artery or arteries. This may or may not be followed by occlusion and subsequent organization of the contents of the sac. This has been proven by post mortem examination and furnishes us a guide as to what must be accomplished by our treatment before an absolute cure can be effected.

The procedure or method which embodies the least danger, the least discomfort and least sacrifice of time combined with greatest certainty of cure should be the method of choice.

Let us analyze the various methods. We find they are quite numerous. Many possess some merit; all but two are uncertain. One of these, extirpation, is attended with considerable danger and oftentimes great difficulty. The other, viz, the Matas operation, meets all the requirements.

The results of treatment depend on so very many circumstances that each case is a law unto itself. The exciting cause, the rapidity of formation, the differences in the sac wall, its contents, the position and number of communicating vessels, the character of the surrounding tissue, the age, constitution and temperament of the patient, the presence or absence of co-existing disease or complications, both local and general, all have their influences in the choice of treatment.

Treatment may be non-surgical or surgical.

Non-surgical treatment is of little import to the variety under discussion, for popliteal aneurysm is a surgical condition and should be so treated. But circumstances may be present precluding advisability of surgical intervention. Efforts must then be directed to counteract the predisposing cause so far as possible, to favorably alter the blood and blood current, thus encouraging thrombosis within the sac and communicating arteries.

The most important medicinal treatment is that recommended and practiced by Val Salva early in the eighteenth century. Our modern starvation plan is a modification of this method. It consists of rest as nearly absolute as possible; low, non-stimulating dry diet, and depletion, sometimes with bleeding.

The administration of drugs is far from encouraging. Potassium iodide is almost universally used, the chief feature being its quieting influence on the circulation and its specific action in syphilis. Calcium chloride was formerly recommended to increase the coagulability of the blood. Digitalis is advocated for its slowing effect on the heart. Veratrum viride also has its champions.

The gelatine treatment recommended by Lanceraux (*Trans. Royal Med. & Chir. Society*, Vol. LVI, 377) has not been followed by uniformly good results and is likely to fall into disuse.

Locally, refrigerants, evaporating and soothing lotions have limited advantages, being nothing more than local sedatives.

Surgical treatment may be mechanical—i. e., methods not strictly surgical, and purely surgical.

Mechanical or non-cutting procedures, undertaken with the idea of causing occlusion of the sac, the vessels communicating with it, or both.

These methods are: Manipulation, pressure, compression, Reid's locking method or Esmarch compression, and flexion.

Manipulation, a more or less modified massage of the sac, the object being dislodgment of the contained fibrin lamellæ and the plugging therewith of the communicating artery or arteries. It is attended with danger of rupture from too violent effort or very thin walls.

Pressure, digital or by bandage, applied directly over the sac, is wrong in principle, very uncertain, and not to be recommended.

Compression may be intermittent or continuous, total or partial, digital or mechanical.

The first recorded cure of popliteal aneurysm following compression was performed in Dublin in 1842 and required forty and one-half hours. (*L. L.*, 1877, Vol. I, 933.) The first in America is credited to Dr. Knight, of New Haven, Mass., in 1848, by the digital method. Compression had been successfully practiced nearly a century before Kretschner, in 1761, reports a cure of brachial aneurysm by tourniquet compression in three months.

Compression is especially applicable to aneurysms of the extremities, and was practiced more commonly before surgical technique reached its present perfected state. Up to the aseptic and antiseptic era it favorably rivaled the then most reliable surgical procedure, ligature.

Digital compression first recommended by Saviard, a French surgeon, is the most certain and rapid method. The principle of compression, manual or mechanical is, that it should be as continuous and complete as local and general

circumstances will permit. The choice of method, manual or mechanical, is determined by the tolerance of the patient. If there be no reason to the contrary total continuous compression should be exercised so long as it is tolerated and there are no alterations in the physical character of the parts which threaten life or limb. Any adverse hint, local or general, should be heeded and compression discontinued.

Compression requires constant personal supervision by the surgeon in charge or some reliable assistant. It should be made to the parent artery as near the sac as possible, to avoid the intervening collaterals and the accompanying vein, a very difficult thing to do. Just sufficient force should be exercised to check the flow. It should never be so severe as to become intolerable and be a cause in and of itself of additional local pathological processes. Its greatest recommendation is that it does not preclude subsequent surgical procedures. Many maintain that it is advisable to precede cutting operations for aneurysms by compression, to develop collateral circulation and thereby lessen the danger of gangrene. On the other hand if too prolonged or too energetically exercised, it is likely to lower the vitality of the tissues by the attending edema and infiltration, thereby favoring infection and gangrene. Should compression be tried, if there be no amelioration of the local symptoms after a few days of earnest trial, it should be discontinued and surgical measures undertaken.

Flexion, as recommended by Ernest Harter, consists in flexing leg upon the thigh with or without flexion of thigh upon the abdomen and weight compression of the femoral. Flexion at the knee greatly modifies the character of the aneurysm and forced flexion obliterates it entirely. (*L. L.* 1859, p. 462.)

Harte and others practiced flexion with no small degree of success in that very limited class of cases suitable for this method.

Reid's method or locking treatment is a modified form of compression exerted by means of an Esmarch bandage. It is a very rapid though drastic procedure.

Not strictly surgical measures: Acupuncture, wiring, electrolysis, galvano puncture, introduction of foreign material—catgut, hair, etc.—chemical injections acting upon the sac walls or solely upon the contained blood, with an idea of repairing the defect in the weakened area. These methods are not founded upon a true understanding of the pathological nature of the disease, and therefore neither logical nor commendable, especially for surgical accessible aneurysms. The results are neither satisfactory nor encouraging,

and statistics prove they are attended with great danger.

Purely surgical methods: The earliest surgical procedure was torsion, performed in the first century, a method not to be countenanced at the present day. Later the sac was opened and plugged or packed with various materials medicated or otherwise. From this we can trace the very efficient, most recent, safest operation, viz., the Matas operation.

The first satisfactory method was that of ligation which marked a great advance in the treatment of aneurysm. The first recorded case of ligation of an artery for aneurysm (brachial) was performed by Dominique Anel on January 10, 1710. Desault did proximal ligation for popliteal aneurysm in June, 1781, preceding Sir John Hunter by six months. He was led to this by examining a case of spontaneous cure of popliteal aneurysm in which the femoral artery was found thrombosed to the muscular branches. He imitated nature by stopping the circulation with proximal ligation.

We will not go into the relative merits of the various operations of ligation, for they are not in point. The nearer the sac the ligation is applied the better the chance for success and the less danger of complications. Distal ligation acts by diverting the blood current and relieving the tension on the weakened area of the sac.

Ligation is not very painful, is rapid, though not always successful, and even since the aseptic and antiseptic era not altogether safe. The vessel some distance from the sac, perhaps at the site of ligation, may be altered, rendering the ligation insecure. One who has performed many autopsies and noticed the condition of the larger arteries, which often show extreme degenerative changes, wonders at the infrequency of aneurysm. Unless applied very near the sac the collateral circulation, by the mere presence of the aneurysm already greatly developed, may, and not infrequently does, become sufficient to re-establish the circulation in the sac and cause a recurrence of the symptoms. Double ligation, one above and below the sac, is an improvement upon the single ligation as far as certainty is concerned, but it is practically two operations and increases the difficulty and danger considerably.

Excision renders cure absolute, and at the same time eliminates the dead space, with the enclosed clot, which affords an admirable nidus for bacterial growth, and is a constant source of danger. Excision, however, is a capital operation requiring difficult, extensive and prolonged dissection with all its attendant dangers. The collateral circulation is very greatly disturbed and trophic

phenomena of greater or less severity frequently follow endangering part, or the entire limb and quite frequently the life of the patient. For its certainty of cure it is probably to be preferred to ligation.

The Old Operation (Antyllus) modified by Thomas Anandale (Edin. Med. Jr., 1886, Vol. II, 716), marked another great advance in the surgical treatment of aneurysm. The sac is opened, cleansed, a bougie passed into the orifices of the arteries, an incision made on each side of the opening of the vessel and a ligation passed from within including all the coats; unless especial precautions are taken nerves and veins may be included in the ligation.

This method was recommended for all forms of aneurysms where the proximal artery can be temporarily controlled. The strongest argument against this method at that time, now known to be unwarranted, was fear of the diseased wall giving way, causing secondary hemorrhage or spread of the aneurysm. Arterial disease has been proven not to be more advanced in the vicinity of the sac. Were it present, the extension would have taken place and have included these areas before operation. Personally in autopsies performed at the Cincinnati Hospital I have verified this condition. Vessels with aneurysms showed exceptionally well-formed and strong walls at the orifices of the vessels communicating with the sac. Upon these findings is based the opinion—the proper place to tie arteries communicating with aneurysms is at their junction with the sac and is most easily accomplished from within. This procedure forms the basis of the Matas operation,—one of the most brilliant of advanced surgical measures, a very pronounced improvement over Anandale's or any other operation for aneurysm. It is the method of the future for treating not only popliteal, but aneurysms of any other vessel, where the proximal artery can be temporarily controlled. It embodies all the essentials for absolute pathological cure, does not trust to unstable fibrin or clot, and uncertain thrombosis of supplying arteries. It does away with the sac contents, which remaining are a constant menace to limb or life. The remotest possibility of recurrence is eliminated, this too with minimal disturbances of the collateral circulation and the surrounding tissues. The chances of subsequent gangrene or other complications is greatly diminished. Should these occur and amputation be required, the same can be done much lower and under more favorable circumstances, than after any other method. The technic is comparatively simple, consisting in controlling the afferent artery, opening the sac freely without dis-

turbing it from its environments, thoroughly cleansing and removing the contained fibrin and clot; closing all visible vascular openings by suturing from within, thus securing complete hemostasis. The sac is obliterated by approximating its walls by one or more superimposed tiers of buried absorbable sutures which bring the endothelial surfaces in apposition. Portions of the sac adherent to skin are inverted into the cavity without leaving dead spaces. Skin sutured (Trans. Am. Surg. Asso., 1905, Vol. XXIII).

CASES COLLECTED FROM THE LITERATURE.

Compression, various methods—Total 271. 25.5% failures. $\frac{1}{4}$ % mortality. 3.6% amputation.

Ligatures, total 151. 3.3% failures. 11.2% mortality. 2.6% amputation.

Manipulation, cures 3.

Recurrences, 11.

Failures, 3, after all methods except excision had been tried.

Excision, Delbet gives 11.2% mortality, 3% gangrene. Matas operation, 21. All cure, no mortality, no gangrene.

It is very evident the Matas operation offers the most favorable results. It is the method of choice.

I herewith report a case of popliteal aneurysm cured by the Matas operation.

H. B., male, salesman, 35 years, presented himself at my office on December 6, 1905, suffering with pain in his left knee, which he called rheumatism.

On examination, the following points were noted—very pale, looks older than he really is. Family history negative. Personal history—had syphilis seven years ago, for which he took prolonged treatment. Alcohol in moderation, excessive chewer of tobacco.

Onset: Perfectly well up to a week ago when he unwittingly stepped into a trench with his left foot, caught himself with his right and during the effort to maintain his erect posture felt something hurt him in his knee. He paid no attention until retiring that night, when he noticed the knee stiff and slightly swollen. This continued for several days and, in spite of applications of liniments, became worse, compelling him to seek relief.

Physical examination: General condition beyond marked anemia fair. Walks with a cane. Left knee swollen, especially posteriorly—popliteal space filled with a pulsating expansile tu-

mor, a typical aneurysm—knee measures 16 inches in circumference, leg swollen and veins dilated. The nature of the condition and its possible dangers were fully explained and an operation strongly advised. Patient positively refused to submit to operation. He was sent home, placed on a modified starvation plan, ice caps were applied locally and potassium iodide in increasing doses administered. After ten days there was slight local improvement. Measurement $15\frac{1}{2}$ inches, less pain and expansile pulsation. Flexion treatment was instituted, became painful, requiring morphia. He was sent to the Jewish hospital, flexion and weight compression to the femoral was continued, could be tolerated only for five or six hours at a time. After three days pulsation diminished, sac felt much firmer, knee and leg feel very sore. Circulation very much impeded felt very sore, complained of pain in the foot, and very suggestive dark spots noticed about the ankle. Operation was again advised—flexion and compression discontinued—leg slightly extended.

Next day patient consented, and on following morning, January 14, 1906, in the presence of Dr. J. C. Oliver, a Matas operation was performed. A large fusiform aneurysm was found, filled with laminated fibrin and unorganized blood clot, with three or four collateral vessels. The efferent artery lay very deeply between the heads of the gastrocnemius muscle, so deeply that had we wished to ligate, it could have been accomplished only after prolonged and difficult dissection. The sac was closed by super imposed layers of catgut sutures—the redundant portions excised. Skin was sutured without drainage. Leg was placed on splint. The circulation in foot and leg improved almost immediately.

Next day patient was quite comfortable. Circulation in limb better than any time since the first day. Stitches removed on tenth day; on fifteenth, patient sat up in chair; twenty-first day splint was removed; on twenty-eighth day walked about with aid of crutch and cane. Movement at knee about normal. Wound completely healed.

Six weeks later, while walking without cane, bumped his leg and bruised the incision. A little dusting powder promptly caused same to heal.

Recovery from operation was rapid and complete without untoward symptoms. Patient, as far as the operation is concerned, is well today.

DISCUSSION.

Dr. Means, Columbus: I do not like to see this paper go by without some recognition. The paper has been well prepared and certainly is a very comprehensive resume of the subject of popliteal aneurisms and the treatments in vogue.

I cannot speak from experience in the Matas operation. I have, however, had considerable experience with the excision method in aneurisms of the femoral artery and popliteal artery. I think I have a record probably, as it comes to me now, of some five cases within a few years in each of which I did the excision operation and without any bad results at all, either trophic disturbance or any other trouble following. In fact, my experience has been of such a character that I would hesitate very much to adopt any other method. I would, I am quite sure, if pathological conditions were favorable, make the Matas operation, as described by our works on surgical technique. I think, however, the success in that operation will depend upon the pathological conditions. I have in mind at least three of the cases I mentioned where the pressure necrosis was of such a character that I doubt very much, indeed, whether an operation of that kind would have accomplished any better results or as good results as the excision method. When a pressure necrosis exists that is involving the surrounding tissues, sometimes even involving the periosteum, it is perhaps rather dangerous to make an operation such as described by the writer of the paper. Drainage is almost absolutely necessary, and drainage would be fatal to the Matas operation, as I understand it. I would not give up the excision method for any other operation that is now on record, although as I have stated, I would not hesitate to make the Matas operation if the pathological conditions were proper. As to the etiology, I have nothing to say. I think that is well understood, and there is nothing new mentioned in the literature on the etiology of aneurisms. I think the medicinal treatment is confined solely to those cases that are inoperable, and then it is simply a matter of waiting until the patient dies. The last I had, where I made an excision of an aneurism of the popliteal artery, there also existed an aneurism of the innominate. The patient died one year following the operation on the popliteal aneurism, and at the postmortem there was found a very extensive aneurism of the innominate. In his case there was an atheromatous condition of the large arteries.

Dr. Hegner (closing): Dr. Means is certainly to be complimented on the results of his treatment following excision of aneurisms, but Deleveau, whose statistics are the most comprehensive on the treatment of aneurism by excision, gives a mortality of eleven and two-tenths per cent., with a three per cent. gangrene in amputation. Pathological conditions existing in femoral as well as popliteal aneurisms would hardly influence a man against Matas operation. It seems logical to attack this thing from the inside, occluding the vessels from within, without disturbing the collateral circulation or nerve supply as well as the tissues can be better done from within. And even on the autopsy table it is difficult to get at the aneurism without doing considerable damages to the tissues. Now as to the drainage, reports of these cases, of twenty-one with Matas operation, have been treated by drainage. They do not in any material sense interfere with the cure or recovery of the aneurism treated by the Matas operation. It is a procedure greatly to be commended.

ARTERIAL CHANGES IN CHRONIC INTERSTITIAL NEPHRITIS.

BY C. F. HOOVER, M. D.,
Cleveland.

[Read before the Ohio State Medical Association, Columbus, 1908.]

The vascular phases of chronic interstitial nephritis comprise all the particular aspects which a failing hydraulics of blood circulation may present. The ultimate results, so far as nutrition and function of the heart and kidneys are concerned, are discussed under other titles.

Several of the early phases and some of the nervous phases of the disease will occupy the time assigned to me for discussion of the subject before you. If we conceive chronic interstitial nephritis to be a mere incident in the natural history of a chronic cardio-vascular sclerosis, I believe we entertain a view which is consistent with most of the clinical histories of the disease. A very common story told by patients who acquired the disease between forty and fifty years of age reveals an account of sick headache or migraine from early youth. The frequency of the attacks diminishes gradually from late adolescence until the middle of the third decade; then the headaches cease and the patient begins to suffer from gaseous dyspepsia, which includes symptoms from both the stomach and intestine. In middle life the patient is no longer distressed by migraine, and the gastro-intestinal dyspepsia is less distressing, but now there develop the first signs of vascular erethism. The patient finds he has neither the physical nor mental endurance which he formerly enjoyed. He finds his muscles are sore and stiff in the early morning. He awakens less refreshed from a night's sound sleep, and as the day wears on he suffers more from mental and physical exhaustion than is consistent with his age and state of general nutrition. The accessible arteries at this period do not reveal the hard and wiry character seen in advanced cases. The pulse may reveal only a slight prolongation of the katarotus, and this prolongation is perceived only during the latter portion of the descending wave. The first impression such a pulse gives to the examiner's finger is like the bounding pulse of aortic sclerosis. It is a pulsus celer, but the celerity is restricted to the anacrotus and the first portion of the katarotus. During this phase of the disease there is generally a capillary pulse plainly perceptible. This partial celerity of the pulse wave and the capillary pulse together may be very misleading and obscure the signs of an in-

crease in the peripheral resistance unless one carefully observes the excursion of the brachial artery at the bend of the elbow, where we can always see an exhibition of pulse characteristics more faithfully portrayed than in a sphygmogram. The brachial artery is visible because of the accentuated curves in its course. We can here see the rapid anacrotus and the rapid katacrotus during two-thirds of the distance and then a final tardy descent to the abscissa.

This is not an invariable experience, but certainly a very common event in the clinical study of chronic interstitial nephritis. The maximum blood pressure is high, but the heart at this period reveals only a slight increase in its dimensions. The patient says he can go through a set form of athletic exercises without suffering dyspnoea, but he complains of a feeling of tire at night-time which is quite out of keeping with his physical resources.

An examination of the urine at this period will often reveal no albumin nor casts. The urine secreted when the patient is lying down may contain no albumin, but urine secreted while the patient is going about will contain a trace of albumin and hyaline casts.

This period of vascular erethism is the stage in which recognition of the disease is most important, because the disease may be arrested by a suitable regimen in diet and the employment of nitrites and hot baths for lowering peripheral arterial resistance. This period of the disease often escapes detection because there are several features of the physical signs which seem inconsistent with an increase of the arterial resistance. The pulse in the radial artery is always insufficient for estimating or detecting a heightened arterial pressure. The terminal delay in the descent of the pulse wave is underestimated unless the examiner will make a careful inspection of the brachial artery where the complete excursion is visible. For an estimation of the pressure, the femoral artery at Poupart's ligament and Scarpa's triangle is most suitable. We have here a large artery (superficially located), which can be opposed to the bony surface underneath. I have found (by employing a sphygmomanometer as control) that the blood pressure can be estimated very accurately at this point. An estimate made from palpation of the femoral artery will not vary more than 20 mm. from the results obtained with the blood pressure apparatus. From the radial artery one cannot form an approximate estimation of the maximum blood pressure. One may make a very nice analysis of pulse characteristics from the radial artery,

but he cannot form any judgment of the blood pressure when the pressure is above 150 mm.

There are two points about the precordial area which are also very misleading in the erethistic stage of the disease. Although the maximum blood pressure may be as high as double the normal, the aortic second sound is not accentuated, nor is the closure of the aortic valves palpable over the second intercostal space at the right of the sternum. Later in the disease, when the aortic arch will have become dilated and elongated, the aortic second will be distinctly palpable and audible, without any further increase in the blood pressure. This is due purely to the increased accessibility of the aortic wall and not to any heightening of the blood pressure.

The size of the heart is also misleading, but if careful and exact percussion is employed we can determine an extension of the precordial dullness fully an inch to the left. We must remember at this period of cardio-vascular disease we are dealing with a concentric hypertrophy and the heart itself may weigh quite as much as at a later period when the increase in the precordial area is easily perceived by palpation.

The difference in the physical signs over the heart in the two periods are due to a concentric hypertrophy in the early period and an excentric hypertrophy in the later period.

The key to the whole situation lies in inspecting the brachial artery and palpating the femoral artery. During recent years many writers have declared the sphygmomanometer the only means by which one can form a correct judgment of the maximum blood pressure and just such cases as I have described are offered as evidence. The aortic second was not palpable nor audible, the precordial area showed only a slight or doubtful enlargement to percussion, the character of the radial pulse did not betray any signs of an increased peripheral resistance, but in spite of all this negative evidence, the blood pressure apparatus revealed a maximum pressure fully double the normal. The error lies with the examiner and not with the cardio-vascular system. If one will look to the brachial artery for his pulse characteristics and palpate the femoral artery for an estimation of blood pressure he will escape the error. Although these details seem insignificant, they are very important, for the recognition of chronic interstitial nephritis during the period of vascular erethism, when the urine shows no signs of disease, is a matter of vital importance to the patient. Later in the disease, when any shoemaker can make the diagnosis, a physician's services are futile.

Another phase of cardio-vascular disease asso-

ciated with chronic interstitial nephritis is that of vascular crisis. Vascular crises play the most conspicuous role in the history of some cases of chronic interstitial nephritis. I have had one man under observation for the past nine years who has had one attack of transient amaurosis, one attack of aphasia which lasted only several hours, two attacks of complete hemiplegia from which he recovered in a day and several transient pareses of one arm or the other. It is these vascular crises which have been so misleading and have introduced so many confusing complications into our conception of uraemia.

Ascoli of Genoa published a monograph of 275 pages on the subject of uraemia. In this monograph Ascoli attempts to introduce some orderly classification of varying pictures of uraemia. When the reader has finished with Ascoli's work I am sure he must share with me the opinion that Ascoli has failed to dispel the mist. In fact Ascoli shows that many symptoms of uraemia arise independently of the renal function so far as we are able to learn from the quantity of urine and urinary constituents. The whole classification of uraemias as pictured by Ascoli would be greatly simplified if all the symptoms due to vascular changes in the central nervous system (and falsely ascribed to uraemia) were taken out of the uraemia budget.

All the signs of uraemia are manifested through some effect on the central nervous system. The nervous symptoms of uraemia are so striking that the mass effect of these symptoms have compelled us to assign uraemia as a cause for all nervous symptoms in the clinical course of nephritis. I feel sure nothing could be further from the truth.

The two structures of the body which are most sensitive to an impairment of oxygen supply are the myocardium and gray matter of the central nervous system. One of the most striking instances to prove this statement is seen in carbon monoxide poisoning. Severe encephalo myelitis results from CO poisoning. The deleterious results to the central nervous system cannot be due to a want of nutrient plasma, for this is unmodified by the poisoning. But the oxygen content of the red cells is not given up to the tissues in CO poisoning, and, although the intravascular and extra vascular circulation may be perfectly normal, only one object of the circulation is defeated, viz., the oxygen supply to the tissues.

If the patient does recover from asphyxia in his internal respiration he is likely to survive

with severe symptoms from an encephalo-myelitis.

The only structures which suffer permanent injury from a temporary arrest of heart beat of two minutes, are those of the gray matter of the central nervous system. If we understand the central nervous system to be so sensitive to an impairment in its oxygen supply, it does not require a wide flight of the imagination to see how the function of any given portion of the cerebral cortex would suffer if its vascular supply should exhibit the same symptoms we are accustomed to see in Raynaud's disease, and erythromelalgia and akroparesthesia, and regional spasm of the entire vascular supply of one extremity from disease of the brain as I have seen in one case of brain syphilis.

The only visible arteries in the body are the retinal arteries and fortunately these arteries have been observed in a contracted state during transient amaurosis. Pal describes one case of his own (in his monograph on vascular crises) and also refers to two cases reported by other men. During the last year I saw a young woman 25 years old who had suffered three attacks of amaurosis which came on in the early morning and lasted for 24 hours. A very capable ophthalmologist saw the eye ground during the first attack and told me that the retinal arteries and veins were so diminished in size that they seemed like small threads. With the return of sight this patient suffered from such a high degree of photophobia it was impossible to examine the eyes with an ophthalmoscope. She gave evidences of many functional disturbances of the central nervous system besides those ascribable to vascular crises, but she serves the purpose of proving the presence of a contraction crises in the arteries of a sharply defined region. The case of Murphy of Chicago proved the same phenomenon in the splanchnic arterial distribution. This patient was operated upon for intestinal obstruction; at the operation a section 18 inches long of the ileum was found firmly contracted and pale. Warm cloths were applied to the affected part and as the vessels dilated the wall of the intestine relaxed. Lead colic was suspected and confirmed by further examination. We are perfectly familiar with vascular crises in the extremities, in the splanchnic arteries and in the retina, although the physiologists are not united in ascribing an active vaso-motor supply to the cerebral arteries, we know the anatomical basis exists for it, we can offer abundant clinical evidence for it and some physiologists have succeeded in demonstrating it experimentally.

Patients with cardio vascular disease and

chronic interstitial nephritis may have general vascular crises which are quite independent of a disturbed kidney function, but in former years these vascular crises were regarded as transient evidences of impending uraemia.

The patient (whom I first described in the paper as having had a series of regional vascular crises of the brain) was shopping in a downtown store three years ago, when he suddenly became confused. He was unable to talk connectedly, his face was flushed, he was compelled to sit in a chair, he was very apprehensive and emotional. The patient was taken to the hospital where we found the arterial pressure was 250 mm. Hg., but I believe it was much higher an hour previous to the time the blood pressure was measured. The urine secreted during this period of high arterial tension had the same sp. gr. as that secreted twenty-four hours later when the arterial pressure was reduced to 150 mm. Hg. under the influence of trinitrin, hot baths, saline cathartics and a milk diet. This patient has been leading the life of a valetudinarian for the past eight years on account of cardio-vascular disease associated with slight albuminuria and a few hyaline casts. He will ultimately die with a chronic interstitial nephritis, but the nephritis will have been a small factor in his invalidism and cause of death. This patient serves the purpose of showing the dissociation between vascular and renal symptoms in the clinical cause of a disease in which we have been accustomed to ascribe all symptoms to a defective renal function.

As the sclerosis becomes more severe the patient may suffer from functional ischaemia of the brain and myocardium and ultimately a nutritive ischaemia of the brain or myocardium will terminate the scene.

Among the nervous symptoms often ascribed to uraemia are Cheyne-Stokes or Biot's respiration. I recently saw a patient 65 years old suffering from cardio-vascular sclerosis and nephritis whose chief complaint was dyspnoea. His dyspnoea or rather hyperopnoea alternated with apnoea. Apnoea lasted for fifty seconds and then followed the distressing hyperopnoea with air hunger which came and went with the characteristic crescendo and decrescendo rhythm of Cheyne-Stokes respiration. This man had chronic interstitial nephritis, but the Cheyne-Stokes respiration during his waking and sleeping hours was not in any way dependent on an impaired kidney function. This patient had marked sclerosis of his bulbar arterial supply and the Cheyne-Stokes respiration was merely a symptom of the hypoaesthesia of his respiratory center induced by an impaired vascular supply to the

respiratory center. The patient was relieved of his Cheyne-Stokes symptom by large doses of trinitrin and caffeine citrate without modifying his oedema or diuresis.

The patient died from myocardial exhaustion a few weeks later, but had no return of the apnoea.

Another instance which illustrates the same point occurred in a man seventy years old who for two weeks had exhibited Cheyne-Stokes respiration with long periods of apnoea, and complete mental aberration. His physician remarked, "The man has such severe uremic symptoms and yet he secretes an abundance of urine with a normal sp. gr." Large doses of nitrites and caffeine citrate caused a disappearance of the mental and respiratory symptoms. The man died suddenly a few days later from myocardial exhaustion.

In former years I would have regarded both these patients as examples of uremia. I now feel certain these symptoms are secondary to an impaired arterial supply to the brain and sustain no relation to nephritis.

If we will always take the pains to differentiate between symptoms dependent on a diseased arterial system and those secondary to the insufficient renal function we will find the symptoms of uremia are not very complicated. The complication lies in a confusion of symptoms (caused by the kidney) with symptoms caused by the arterial disease.

THE ETIOLOGY AND PATHOLOGY OF CHRONIC INTERSTITIAL NEPHRITIS, INCLUDING THE URINARY FINDINGS.

BY LOUIS A. LEVISON, M. D.,

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[Read before the Ohio State Medical Association, Columbus, 1908.]

The subject which has been assigned to me in this symposium is "The Etiology and Pathology of Chronic Interstitial Nephritis, including the Urinary Findings." A consideration of this subject necessarily involves some mention of the classification of nephritis or Bright's disease. To attempt a complete discussion of the classifications of various writers would lead me far astray. It may be said that none is uniformly accepted. The nephritis of the clinician may differ widely from the nephritis of the pathologist. The anatomic changes found by the pathologist may never have been diagnosed clinically, and the nephritis of the clinician may not be present post-mortem.

Indefinite and inexact as it in many ways is, the old classification of nephritis into acute and chronic interstitial nephritis has many points of value and for practical purposes offers a good working basis.

The term Bright's disease, too, should have proper limitations; but, used as it generally is, only adds confusion to the nomenclature of renal inflammations. The term is generally used as synonymous with nephritis, but the present day interpretation is quite different. Strictly speaking, Bright's disease should be used not to designate a local disease—e. g., a nephritis, but a general affection, having certain renal features.

Chronic interstitial nephritis in the sense implied in this symposium is a slowly progressive condition, involving all parts of the kidney, but not necessarily at one time. The connective tissue is markedly increased, and primarily so, while the glomeruli are later and secondarily affected. An increase of the interstitial tissue, with degeneration of the epithelium, is not sufficient to justify an anatomic diagnosis of chronic interstitial nephritis. Were this so, it would be demonstrated pathologically even more frequently than it is. The typical kidney of chronic interstitial nephritis is one of decreased weight, adherent capsule, granular and irregular surface, diminished thickness of cortex, marked increase of connective tissue and degeneration and atrophy of glomeruli and tubules. The kidney is not uniformly affected, as above described. All stages of glomerular involvement can usually be found in the same kidney at the same time. All the histologic elements in the kidney will be found to be affected, either with inflammatory, degenerative or regenerative changes.

This, in a word, is the anatomic picture. However, it should be remembered that the nephritis *per se* is not necessarily either the primary nor the sole lesion present in the general disease known as chronic interstitial nephritis. It is essential to mention some of the associated structural changes. Stengel believes that chronic interstitial nephritis is primarily only a part of a general arterio-sclerosis, and pathologists confirm the statement that there are few cases of the form of nephritis in question not associated with a general arterio-sclerosis. A pure arterio-sclerotic kidney is described as occurring in general arterial sclerosis, showing atrophy, and this kidney may be difficult to distinguish clinically from the kidney of chronic interstitial nephritis.

The associated arterio-sclerosis is one of the most important pathologic findings in chronic interstitial nephritis. Closely connected with this is the presence of increased blood pressure. As

these subjects will be considered in another paper of this symposium, I shall consider them only briefly. Increased tension and sclerosis of the arteries should be kept distinctly separated. The frequent association of the two leaves no doubt that they have certain factors in common. There is probably no condition in which increased tension is so commonly present as in chronic interstitial nephritis. The increased tension remains permanent, and is not particularly responsive to treatment. Palpation with the finger is not sufficiently reliable to estimate changes in the blood pressure. Experienced clinicians will at times fall wide of the mark. The sphygmomanometer is essential for scientific and good work. It is all too common to infer an increased tension from the presence of sclerosis in the peripheral arteries, but this is not borne out by careful observation. The researches of Hirsch, Hasenfeld and others go to show that increased tension exists only when sclerotic changes are present in the aorta or the abdominal vessels of the splanchnic area. Changes in the aorta give rise to more or less characteristic physical signs, but as yet we have no clinical method of determining the presence of sclerosis in the abdominal vessels. The influence of the abdominal vessels in regulating the blood pressure is recognized. Tyson speaks of the presence of sclerosis in the ganglia of the renal sympathetic system and its connection with increased tension. The blood pressure may be enormously increased and has been known to reach 300, but this is exceptional and unusual. Pressures of 200 and over are not at all uncommon.

Another of the most constant pathologic changes is cardiac hypertrophy. This association was early emphasized by Bright in his own cases. The degree of hypertrophy varies considerably, even in cases in which the same apparent factors are present. In nephritis, as in other diseases, hypertrophy will not occur if the patient's nutrition is not sufficiently good. All the elements of cardiac hypertrophy may be present—blood irritants, hyper-tension, arterio-sclerosis, kidney fibrosis, and yet hypertrophy may be absent. Slight degrees of hypertrophy may not be detected clinically and the condition found only at autopsy. Müller has described a method of determining cardiac hypertrophy based upon careful weighing of the individual heart chambers and a comparison of these to the body weight.

The theories of the causation of cardiac hypertrophy are closely related to the causes of chronic interstitial nephritis. Potter has recently contributed a very excellent resumé of the various opinions upon this subject. The view that the

cardiac hypertrophy resulted from an increased resistance to the flow of blood in the kidney can be excluded, although it is true that such a resistance does occur from obliteration or thickening of vessels and compression by the exudate. However, such an hypertrophy has been shown not to occur experimentally after ligation of the renal vessels. It is interesting to remark that the original theory of Bright is now again being approached, after it has been supplanted by a succession of others. Bright believed that there was some chemical alteration of the blood, by virtue of which there was a stimulation of the heart or vessels or both, resulting in increased resistance to the arterial flow. That there is some relation between cardiac hypertrophy, hyper-tension and arterio-sclerosis cannot be denied. The increased tension is probably primary to the cardiac change. Attention has been drawn to the fact that hypertension occurs with or depends upon involvement of glomeruli. Just in what way involvement of the glomeruli affects the blood tension is not entirely clear. Possibly substances which under normal conditions are passed out in the urine by the glomeruli are retained in the blood and act reflexly upon the vaso-motor apparatus.

The brevity of the mention which I make of the eye changes is no criterion of the importance which I ascribe to them. These are pathologic changes which can be seen and diagnosed ante-mortem. These signs are only too often neglected by the practitioner, and not infrequently the oculist is the first to diagnose chronic interstitial nephritis. Albuminuric retinitis, having, as it does, such diagnostic and prognostic significance, should be more often looked for by the physician.

Much is to be expected from chemical investigations, and further advances in the nature of nephritis will be more likely to come through chemical pathology than by the demonstration of yet undiscovered anatomic changes. Tigerstedt has reported that the extraction of a substance from the kidney, which he calls rennin, will upon injection raise blood pressure. Croftan, too, observed a rise in blood pressure after the injection of xanthin, hypoxanthin and related chemical bodies.

The etiology of chronic interstitial nephritis opens an interesting chapter. That there are certain predisposing factors is generally recognized. It occurs more often in males after forty who have been subjected to excessive worry or work, mental or physical. An hereditary factor is common. The remarkable case of Tyson showing the hereditary factor impresses one with the reality of this element.

Among etiologic factors, intestinal disturbances and constipation have more than a passing interest. These long continued toxemias may be potent factors in the production of chronic interstitial nephritis. When intestinal decomposition becomes excessive, it shows itself by the appearance of indican in the urine, but slight or moderate decomposition can exist for months or years, with long continued absorption of intermediate or abnormal products of digestion, without indican showing itself. The irritant or poisonous action of these substances upon the arterial system of the entire body, including the kidney, must be considered as one of the actual causes of nephritis. These substances may act directly or from impairment of the activity of the liver, which bears the brunt of poisonous intestinal toxins.

The urinary findings in chronic interstitial nephritis may or may not be of importance to the diagnostician. The association of a certain definite urinary picture with a certain definite pathologic type has long been customary, and yet this cannot always be accepted.

In the diagnosis of renal disease much is to be expected from a determination of the kidney sufficiency. Methods for determination of the kidney functioning capacity are not altogether satisfactory, and one of the richest fields in medicine is to be found here.

Not enough emphasis, in my opinion, is laid upon the chemistry of the urine. It is true that reliable chemical findings are only to be attained by long, careful and painstaking analyses, with the patient upon a known diet. However, we have no other alternative at present. A standard test diet for urinary study is also much to be desired.

An exact understanding of the urinary picture in any type of renal lesion presupposes an understanding of the physiology of urine formation. Late studies have added to our knowledge of this subject. The kidney secretion is closely connected with the degree of blood pressure. When the general arterial tree is constricted, the urine will be increased in amount, providing the renal artery is not to be constricted. The mechanism of urine formation is still a disputed point. I cannot go into the question here. It is still one of the most enticing fields for investigation, and new theories appear with almost constant regularity.

The urine in chronic interstitial nephritis has been customarily considered as more or less characteristic. The increased quantity of urine, the low specific gravity, the scanty albumin and morphologic elements have long been considered characteristic and more or less diagnostic. How-

ever, the urinary picture and the pathologic findings at the autopsy are not always in accordance. Of the greatest importance and not to be forgotten is the uncertainty or rather variability of the urinary findings, especially as concerns casts, epithelium and albumin. An opinion based upon the result of examination of a single specimen—an entire day's specimen—may be widely misleading. In fact, the greatest caution should be exercised in diagnosing this form of nephritis from the urine alone. The functional capacity of the kidneys may offer more than the determination of albumin and casts. Nitrogen estimations are especially valuable. The characteristic urine of chronic interstitial nephritis may resemble the urine in acute or subacute nephritis during the period of convalescence, in waxy kidney and the cyclic or physiologic albuminuria (Emerson). Casts may be absent for considerable periods of time.

Explanation of this depends upon the disputed origin of hyaline casts in general. Although there are many opinions, it seems to me that the most plausible one is that the cast is a solidified exudative process of damaged epithelium. Impairment of the renal epithelium from any cause—hyperemia, inflammation, toxemia—produce an exudate in just the same way as occurs in epithelial impairment of the bladder, lungs, nares or other structures of the body. The number of casts depends upon the amount of damage to the epithelium. An insignificant lesion, capable of complete restoration, but localized in the epithelium, may produce marked cylindruria, while a severe and permanent kidney affection, involving principally the interstitial tissue and blood vessels, may be associated with slight or absent cylindruria. The variability of the findings are thus explained. Sudden exacerbations of epithelial impairment, as may easily occur in nephritides, will account for the sudden changes in the number of casts. The number of casts is not so much an indication of the renal condition as of the condition of the renal epithelium.

The same thing in a general way is true of the albumin. The serum albumin in the urine is the serum albumin of the blood which has escaped through the damaged epithelium of the glomeruli and possibly the tubules. When the epithelium is not severely damaged, but small amounts of albumin escape, regardless of the severity of the interstitial and vascular changes.

The safest rule in chronic interstitial nephritis is to judge the urinary findings only with the general clinical picture. Disregard of this may lead to grave diagnostic errors.

237 Michigan St.

LUMBAGO SIMULATING KIDNEY DISEASE.

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Late "Aide de Clinique" Service of Prof. Guyon,
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[Read before Ohio State Medical Association,
Cedar Point, 1907.]

Lumbago is not classed among the catalogue of diseases as a separate and distinct malady. It has not been considered a subject of sufficient importance to be dignified by the name of a disease. Literature upon the subject is brief and meagre. It is seldom spoken of in the lecture room, not often referred to in medical journals and is rarely discussed in medical societies.

Speaking in general it has been treated as a matter of trifling importance by authors as well as physicians and all other parties concerned except—the patient. To him it means days and nights of agonizing pain and misery, too often aggravated by the lack of interest from physicians and the want of sympathy from friends which a real disease would entitle him to.

Lumbago is classified by most authors under the head of muscular rheumatism and is defined as "a painful affection of the muscles of the loins and their tendinous attachments."

It is claimed by some authors to be purely nervous in character, being strictly local, non-inflammatory and wanting in general or special pathological conditions. These latter place it under the general term of myalgia, and arrange it beside similar affections such as torticollis, pleurodynia, sciatica etc.

This affection occurs mostly among working-men who are exposed to sudden changes of temperature, such as molders, engineers, bakers, firemen and others who are exposed to dampness, drafts of cold air or other atmospheric conditions which cause sudden checking of the perspiration.

This affection is of such common occurrence and its causes, symptoms and general history so familiar to every one of you that I fancy that it would appear gratuitous in me to further attempt to describe or explain them. Perhaps it would be more interesting to describe the patient and notice his behavior as he appears before us for relief.

As a general rule he is a man of robust figure, seldom subject to any form of disease, of middle age and aside from his present affliction is quite healthy and vigorous. The mental problem that puzzles his mind is how he can use his limbs, eat

his meals and feel so good generally while "that back of his" feels as if some fiend was goading him to desperation.

He generally gets to the office in a high state of temper and excitement, limping along painfully supported by one or two canes. His steps are short and painful and his moans are loud and frequent.

An invitation to sit down in a chair increases his embarrassment. He dreads the attempt. He feels that his back, already half broken, might snap in two.

But while waiting he braces up courage enough to back up slowly against an arm chair, tries to balance himself so as to slip down easily, but suddenly falls back with a yell while the canes roll over the office floor.

When he stands in the consultation room, leaning forward with his left hand holding the supporting cane while his right hand rests sympathetically on the sorely tried back, he presents a mental picture which has been photographed, stereotyped and multiplied a thousand fold and spread broadcast over the length and breadth of the land. We see it in the drug store windows, in the daily papers and alas, also in the religious weekly, on bill boards, barns and fences. It proclaims that the figure depicted here is a typical case of kidney disease, that his case is lamentable and serious, but it holds out a hope in the shape of a bottle of mysterious ingredients which will cure that mysterious disease and restore him to health and vigor and bless him in his day and generation and his children and his children's children forever after.

This is the external view of the picture, but there are other evidences of the ordeal he has struggled through. His back is covered with plasters and there are excoriations around his shoulder blades where the dear old ladies put the hot salt and vinegar, blisters where the hot smoothing iron slipped over the brown paper, and queer little bulging holes where the doctor delivered the hypodermic injections.

This was all done no doubt in good faith, but it was done for the cure of kidney disease: awful predicament! It is like accusing a man of wilful murder when he is only guilty of petit larceny.

There is a form of lumbago, that might be termed chronic, of a much milder character than the one just described. This occurs in men beyond the middle period of life. It is characterized by stiffness and rigidity of the lumbar muscles with pain on stooping and rising and inability to perform manual labor.

In an analysis of 750 cases of this class, com-

prising soldiers of the war of the Rebellion under examination for pensions, the writer found them all free from kidney disease except about 1 per cent. and in that small number it was apparent that kidney disease had no causative connection with the lumbago. The conditions were merely co-existent and had no other relation to each other.

We rarely find a case in which kidney disease is mistaken for lumbago, but frequently find cases in which lumbago is diagnosed and treated as Bright's disease.

This is singular in view of the broad distinction which even a casual observer can find in the general appearance and marked differences in the two conditions.

The writer does not consider this error due to a lack of knowledge on the part of the attending physician, but rather to a sin of omission—namely the absence of the test tube.

Perhaps in the hands of skilled workers the so called naked eye pathology may prove in the main correct, but a diagnosis of any form of kidney disease without the aid of test tube and microscope cannot signify much more than a mere matter of conjecture.

Since the memorable researches of Richard Bright were published in 1827 all diseases of the kidney characterized by albuminuria and general dropsy have borne that distinguished author's name. Various forms of nephritis, both acute and chronic, have been grouped under this title, giving rise to endless confusion.

Many modern authorities favor the omission of the author's name and would use the simple term nephritis instead.

But it is not my intention to burden you with a discussion on this point. My object can better be attained by a least two typical cases, which I ask your indulgence for presenting, as follows:

CASE 1.—Mrs. L., housekeeper, aged 40, well developed and nourished, pulse and temperature normal, respiration slightly increased. Found patient lying on a lounge, suffering great pain and presenting characteristic symptoms of acute lumbago. I applied at once adhesive straps along lumbar region, binding down muscles firmly. Having this done patient was able to get up and walk around the room feeling free from pain. Examination of urine same day resulted as follows: color, yellow, transparent, reaction, acid, specific gravity 1020, no albumin, no sugar, no casts. Adhesive straps were allowed to remain in position 7 days, during which time she worked moderately. At that time plaster was removed leaving no pain or uneasiness. This is a typical case of the acute attack. No other remedies were

used. This case had been pronounced Bright's Disease by attending physician.

CASE 2.—Union soldier, aged 65, came to the office for treatment. States that he had Bright's Disease, was advised by his physician to seek relief at watering places. Mortgaged his farm and spent a year at different resorts including Mt. Clemens and Hot Springs, Arkansas, returned without material relief. Examination reveals stiffness and rigidity of muscles of back. Typical case of chronic lumbago. Urine—color, yellow, acid, reaction, specific gravity 1022, no albumin, no sugar, no casts. The same treatment, namely, strapping the lumbar region with strong adhesive plaster was used.

In explanation of the treatment I wish to say in conclusion that I have pursued this method for many years. It is based upon the broad principle of rest, secured for the affected part.

The method is as follows: The patient is placed on a couch or table in the semi-prone position, leaving the muscles of the back relaxed. After carefully washing the skin with soap and hot water a little alcohol is applied to the surface.

The strips of plaster are then applied, measuring from 9 to 12 inches, first vertically along the spine, then obliquely across the loins, then transversely across the lumbar muscles until the whole region is firmly bound.

This is followed by immediate relief and can be retained for a week or ten days.

Lumbago may simulate kidney disease to the public but to a careful physician such an error never occurs. The lines are so broadly drawn that comparison is almost absurd. It is like comparing the roar of Niagara with the purling music of a mill race.

Our duty as physicians is plain in both cases. Let us have recourse to chemistry through the test tube and to bacteriology through the microscope. These two great searchlights of modern science will illuminate for us the dark recesses of error and lead us into the open light of truth.

DISCUSSION.

Dr. N. Rosewater, M. D. (Cleveland, O.): I am glad to hear that there is somebody else besides myself that uses the plaster bandage so freely. It has been used for a good many years, I agree with Dr. Reade, and that is the best thing in lumbago. I do not use it exactly as the doctor did. I consider the lumbar muscles are often dragged and pulled by an abdominal ptosis or an overweight of the abdomen in the laboring men and women who are overstrained in their work and consequently have over-exercise and over-strain of the parts that have to bear the brunt of the abdominal weight, and that is the lumbar region, and not supported by the ribs

above and the hip below, and that is exactly in the region, and if you follow the lines of force you find that is the direction in which the muscles give out. I have often come across cases where they have tried the plasters on the back, and undoubtedly they sometimes get it right and do good, but they may get them anywhere, but in the right place, and do not get any result from them. Whereas, I think in lifting the abdominal wall with three-inch adhesive plaster, beginning right above the pubes, and spreading it up diagonally until it reaches the spine, gives support in the line of gravity. I follow this with another piece on the other side, and sometimes a cross piece to give support to the recti muscles. In other words, give support to all the muscles involved, recti, abdominal and transverse, and then the patient will have immediate relief and will be able to go to work and work right along with it. Very strong women that I have bandaged that way have sent for me the next year, who had been clipping off little pieces of plaster for months, and then they wanted me to do it again because they would work better that year than ever before, the tonic influence lasts so long. Often in the summer, when there is a great deal of natural tendency to over-relaxation and over-strain and a lack of tonicity, after applying the adhesive the muscle is relieved fifty per cent. and not only the muscle but the heart is relieved of an enormous amount of work in the pumping it has to do through the stretched blood vessels. Most magnificent results are attained in those cases that require toning up of the muscle.

Dr. Reade (concluding): I thank you, gentlemen, for the lively interest you have taken in this matter. My object in bringing this subject before the State Medical Society is to enter a plea for more careful methods in the diagnosis of genito-urinary diseases. The error in cases of this kind is mainly due to indifference on the part of the physician, which when considered in the light of modern medical science is entirely inexcusable. The ordinary tests in urinary analysis are within the range of every practitioner, and we can safely say that he who by careful and conscientious diagnosis eliminates such maladies as Bright's disease and diabetes is walking in the ways of those that cast out devils, because he relieves the ills of the spirit as well as those of the flesh.

RECENT ADVANCEMENTS IN EYE, EAR, NOSE AND THROAT WORK THROUGH BACTERIO- THERAPY.

OSCAR BERGHAUSEN, M. D.,
Cincinnati.

By bacterio-therapy is meant the use of sterilized bacterial bodies as a means of securing therapeutic results. Koch's new tuberculin represents such a preparation, since it consists of the triturated tubercle bacilli in suspension. It re-

maintained for Sir A. E. Wright to introduce a means of adopting preparations of a variety of infectious organisms causing specific infections for therapeutic purposes. These preparations consist merely of a suspension in one-fourth per cent. salt-lysol solution of the organisms grown on some suitable solid culture material. This mixture is then injected subcutaneously in carefully-measured doses, the interval being as a rule seven to ten days.

According to the theory of the opsonins as first introduced by Wright, specific bodies are developed in the serum, which in turn act upon the bacteria, enabling them to be more readily phagocytosed. To measure the reaction produced in the system, the opsonic index determination has been devised, which consists in determining the number of bacteria taken in by the leucocytes when the patient's serum is used, as compared to the number taken in when a series or pool of normals are used. Many authorities claim that there are so many variable factors in this determination that the index is of no value to guide them in determining the moment at which the next injection should be made.

The method is simply one of securing active immunity by repeated injections of a suspension of the dead bacteria. Since it is assumed that each bacterium possesses specific bodies, it is necessary to isolate where possible, the particular bacterium causing a specific infection, and to prepare the vaccine from cultures of this organism. With this brief introduction, let us at once consider its therapeutic application.

Although Koch's tuberculin was introduced during the nineties, it came into general disuse again, owing to the fact that it was given in too large doses. Subsequent experiments have shown that the repeated use of small doses will prove effective, however, giving such a dose as to just avoid a reaction. Wright claims that small doses beginning with about 1/4000 mg. in adults and gradually increasing the dose until 1/400 mg. is given, over a prolonged period if necessary, at intervals of seven to ten days will prove sufficient. Others begin with doses of 1/500 mg. and increase gradually at intervals of about four days, and in such measured doses that no local or general reactions are produced. If a reaction is produced it becomes necessary to go back to a much smaller dose and begin the procedure over again. Other methods merely deviate from this in that at the very start a much smaller dose as 1/5000 mg., even 1/10000 is adopted.

The early method consisted in using large doses, in the hope that the local reaction would result in the healing process. That favorable re-

sults are possible under such treatment was seen in a case which recently came under my attention. The patient, suffering from recurrent tubercular iritis, had formerly undergone anti-syphilitic treatment at Hot Springs without effect. Subsequently large repeated doses of tuberculin, causing distinct local reactions, pains in the joint, fever, etc., eventually produced a temporary cure. Six months later when I first saw the case, the same condition recurred in the right eye. By beginning with small doses and increasing gradually, results seem to show that a more lasting immunity is produced.

The use of tuberculin is indicated in all localized lesions about the eye, ear, nose and throat, whatever the tissue may be. Numerous cases are on record in which tubercular keratitis, iritis, choroiditis and retinitis, either of the local nodular type or of the diffuse order, have been healed. Thus Ross (1) reports a case in which definite tubercular nodules were to be found on both irises, also corneal opacities and keratitis punctata, the whole condition serving to considerably obscure the vision. Under inoculation with 1/1000 mg. of tuberculin, the nodules slowly melted away and the opacities cleared up, until after a period of nine months there was very little to be seen in either iris. Emery (2) reports a case of iritis and another of keratitis, with complete recovery after six weeks. He never resorted to doses exceeding 1/800 mg. tuberculin.

Erdmann (3) on the other hand reports a case of tubercular iridocyclitis in a girl of twenty years of age, suffering from bone tuberculosis, and in which a beginning dose of 1/500 mg. Koch's new tuberculin was used, gradually increasing until 1/100 mg. was given. At this point a local and general reaction followed. He returned to a dose of 6/1000 mg. and again gradually increased at the rate of 1/1000 mg. every second day, until the maximum dose of 8/10 mg. was given, the whole treatment lasting six months with a favorable end result. Seven months had elapsed at the time of the publication of the case, and no recurrence had taken place. In these cases there is to be noticed at first a diminution in the local inflammatory condition, irritability disappears, the iris responds more readily to atropin, the exudate in the anterior chamber gradually disappears and the visual acuity returns.

Equally good results can be expected in tuberculous lesions of the nose and pharynx. In the case of tuberculous laryngitis, however, favorable results are seldom obtained through the use of tuberculin alone, which may be due to deficient vascularization, the continued exposure to mixed infection or the continued local irritation pro-

duced by the action of the cords through the act of talking. The important essentials in treatment through the use of tuberculin are small doses at the start, the gradual increase in the doses and the prolonged course of the treatment.

OTHER PYOGENIC INFECTIONS.

During the past few years the attempt has been made to treat localized infections, more particularly of the ear, nose and pharynx, however, in which other pyogenic organisms, staphylococci, streptococci, pneumococci, colon bacilli, etc., were to be found. In these cases it becomes necessary to isolate the organism in each individual case, and to prepare the corresponding autogenous vaccine. If the infection is a mixed one, either successive or simultaneous inoculation by means of the various vaccines must be resorted to. The opsonic index has been of aid to many, especially in the case of mixed infections in determining the exact interval and dosage of inoculation.

This form of treatment applies more particularly to the chronic cases, those which owing to their extent make the operation most difficult or impossible, those in which operations and local treatment have been shown to be ineffectual, and lastly in the treatment of persistent fistulæ. That each case does not respond quickly and completely to this form of therapy must be acknowledged. The patient's condition must be such as to enable a response to this specific form of therapy. Again, some other hidden factors may be at work, an unknown organism, extensive bone necrosis, etc., which may defeat a final perfect result. The work which has been done, however, and by excellent authorities at that, shows that much may be expected from this direction. In a personal communication, Dr. J. C. Beck, of Chicago, states that he has treated both acute and chronic suppurative nose and ear cases of various infections such as staphylococcic, streptococcic, pneumococcic, pseudodiphtheritic, colon like and tubercular with very encouraging results.

Through the kindness of Dr. Wade Thrasher, it was made possible for me to treat the following case of "otitis media purulenta chronica." Patient, Mrs. B.; age, 46; married; had had typhoid at the age of eight years, following which the left ear had run for four years, then it stopped for a period of twenty-two years. During the past twelve years it has been discharging constantly, the patient noticing a purulent discharge which would escape each morning upon tilting the head. She came to the Ophthalmic Hospital Polyclinic for treatment, because the discharge had now become bloody. Examination showed a profuse purulent discharge, very foul and streaked in

places by blood. A small polyp of granulation tissue, just anterior to the drum membrane, causing the bleeding, was snared off, and the ear douched thoroughly upon this and the following day. On the second day following the operation the discharge was as profuse as before, a culture showed a pure growth of a colon-like bacillus, marked by the same feculant odor. The opsonic index to this organism before treatment began was 0.78. The corresponding vaccine was prepared and injections beginning on February 20, 1908, with 100,000,000 bacilli, were given, as a rule, at the end of every seven days, although an interval of four days was found sufficient. The maximum dose was 600,000,000 bacilli, and the highest index 1:26 three days after the previous injection. The improvement was most marked at the start, thus on March 12, three weeks after the first treatment, the patient reported that the discharge had practically ceased, only a clear drop of fluid being present in the left ear each second morning. From then on the condition remained practically the same, it being probably impossible to remove the very last bit of infection, no doubt due to the presence of some bone necrosis. Repeated examination of the discharge has shown that only this one colon-like organism was present. The patient was last seen on April 18, when no distinct discharge was to be seen, but a slight accumulation of crusts of dried pus were still present just anterior to the position of the drum. The offensive odor had practically disappeared. No other form of treatment was used, in order to try out the method.

Although an operation may become necessary, this case at least demonstrates what may be accomplished in such chronic cases before an operation is resorted to. An operation at this stage would be most instructive indeed, to determine in how far the local condition now differs from one under similar conditions operated upon, without previous bacterial injections. Numerous cases are reported, however, in which a complete cessation of local symptoms was secured through inoculation with the autogenous vaccines. Thus Magruder (4) reports numerous such cases, among others one of an acute otitis media which had resisted other local measures, and which two months after the onset developed symptoms resembling beginning meningitis or brain abscess. In short, after a period of four weeks in which the injections of the autogenous pneumococcic vaccine were resorted to, the ear had become completely dry.

The pneumococci seem to be a common factor in the production of pharyngitis and rhinitis, and empyæma of the sinuses, and numerous cases of

effective treatment with vaccines are on record. Thus Emery (2) reports a case of empyæma of the frontal sinus, due to pneumococci, in which a complete cure had been effected after five injections. Another field for such treatment is that of persistent mastoid fistulæ following operations.

Thus it may be seen that this new field of bacterio-therapy is deserving of a thorough trial before it is to be discarded. It has been demonstrated that its proper application in conditions which have not been benefited by the usual methods, can be of distinct value to the aurist, oculist and laryngologist. Severe cases of chronic and subacute infections of the upper air passages will probably later be shown to yield through opsonic treatment, when other measures have been ineffectual. Although it is impossible to conceive how dead bone when once present can be removed, we still are in a position to assert, that through the use of the proper vaccines it is possible to heal up numerous resistant cases; to render the parts as free from pus as possible in order to make the operation a nearly sterile one; to immunize the patient against the specific organism causing the infection before the operation for the local condition is undertaken, in order to hasten the process of repair and to prevent complications; and to aid in the repair of any secondary conditions as mastoid fistulæ which have developed as the result of an operation, a condition which at times necessitates a prolonged period of convalescence, or a visit to another climate.

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 3. Erdinann—Munchner Med. Wochenschrift, April 2, 1907.
 4. A. C. Magruder—The Laryngoscope, Nov., 1907.
- 19 W. 7th St.

DISCUSSION.

Wade Thrasher, Cincinnati: I want to make a remark about the case Dr. Berghausen referred to. The case was a typical one for a Stacke-Schwartz operation. The discharge was very profuse and foul smelling. There was a polyp springing from the region of Shrapnel's membrane. The woman had more or less nausea and some little traces of vertigo, although slight. I snared off the polyp and the case received no treatment except that little surgical procedure. It wasn't even syringed out. I saw the case several weeks after this treatment had been carried out. It had not been syringed out for three weeks and there was just enough pus in the canal to moisten a little piece of cotton. I consider the result was most remarkable, and I believe in milder cases where the discharge is simply due to a pyogenic

membrane the results will be all that is to be desired. I think the discharge that is still being kept up is due to the necrosis. I do not believe treatment according to this theory will have very much effect on cases of that sort.

HEMATURIA.

A PLEA FOR MORE ACCURATE DIAGNOSIS AND RATIONAL TREATMENT.

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New Philadelphia.

In making a diagnosis of hematuria, the question may sometimes arise, as to whether the discoloration of the urine is due to blood or to some other substance.

Certain articles of diet and some drugs may cause a change in color, which may in the absence of other symptoms be mistaken for blood. For example, beet root, rhubarb and logwood are said to color the urine red; rhubarb may cause a true hematuria, as will be shown later.

Bile in large quantity will cause dark-colored urine, but the presence of jaundice and the test for biliary coloring matter should prevent a mistake.

The color of urine containing blood may vary from a muddy pink to a port wine color, and if the blood has been decomposed by long contact with urine, the color will be darker, ranging from a smoky hue to brown or black.

The guaiacum test may be used to detect the presence of free hemoglobin even in small quantity, while the microscope will reveal blood corpuscles in a true hematuria. I use the term true hematuria in contradistinction of hemaglobinuria, in which only the products of corpuscular disintegration are present. Hemaglobinuria may be caused by constitutional disease and by some drugs.

In the majority of cases the diagnosis of hematuria is easy and will be made from the gross appearance of the urine alone.

It will not be so easy, however, to find the source of hemorrhage.

In the male, it may come from the urethra prostate, bladder, ureters or kidney, and it is said that bleeding from the seminal vesicles may cause hematuria, but I have never seen such a case.

In the female, contamination may occur from menstrual blood, but the fact that the patient is menstruating at the time should cause careful examination and perhaps delay before giving an opinion.

Before the cystoscope had reached its present state of perfection, physicians were wont to rely upon symptoms alone in the diagnosis of the source of hemorrhage.

It was supposed that the more arterial in color the blood, the nearer the lesion to the urinary meatus. This idea is fallacious, as I have seen bright red blood passed with urine in cases in which it was afterwards proven beyond any doubt that the lesion was located in the kidney.

In severe injuries to, or in new growths of the kidney, blood may be poured out in such quantity that it will be voided as almost pure blood, and of bright red color.

Equally fallacious is the supposition that smoky or brown urine will always indicate hemorrhage from the kidney. I have known cases where in slight oozing of blood into the bladder, the urine passed was smoky or coffee-colored; also in severe hemorrhage from the prostate, I have removed from the bladder a mixture of black clot and brown urine.

I have in mind a case of bleeding from one kidney where the urine would be sometimes pink or red, and at other times smoky or coffee colored. If blood remains for some time in contact with acid urine, it will assume a brown or black color.

Long narrow cylindrical clots have been supposed to result from renal hemorrhage, the blood being moulded in the ureter, but the same kind of clot may result from hemorrhage into the urethra.

In bleeding from the bladder or prostate, the first urine passed may be quite clear, and almost pure blood may be squeezed out during the last of the expulsive effort.

In one case which I have observed of slight bleeding from the kidney, the hemorrhage would be intermittent, the blood would settle to the bottom of the bladder, and be passed first, followed by comparatively clear urine.

The absorption test may be useful in some cases, owing to the fact that the normal mucous lining of the bladder will not absorb anything, or practically nothing, in a suspected bladder lesion, a solution of iodide of potassium is injected, and if an abrasion or solution of continuity exists, there will be rapid absorption, and iodine will be detected in the saliva.

In fracture of the pelvic bones with injury to the bladder, hematuria will occur, at times only blood being withdrawn by catheter. Hematuria may occur in a case of fracture-dislocation of the vertebrae involving the lower thoracic region; the hemorrhage comes from the kidney and may occur whether the kidney structure has been im-

plicated in the traumatism or not. (Allan Jour. A. M. A., March 21, 1908.)

The presence of casts may throw some light upon the diagnosis, blood casts appearing in a severe acute nephritis, such as may follow extensive burns. Granular casts occur in chronic nephritis, and if accompanied by hemorrhage, and other symptoms be absent, will point to the kidney as being the source of bleeding.

Tumor cells or pieces of growth may come either from the bladder or kidney. The eggs of the distoma hematobium if found will clear up the diagnosis, but this parasite is not often found outside of Eastern Africa or Arabia.

Pain will be present in some cases of hematuria and may direct attention to the source of bleeding, as for example in some cases of renal calculus.

A careful physical examination should be made, the condition of the heart and blood vessels be noted, and an attempt be made to palpate the kidneys. If the kidney is of normal size and in proper position, the lower pole can often be felt just below the margin of the ribs on either side, the right being normally lower than the left; in case of a fleshy subject it is usually impossible to palpate a normal kidney.

Examine along the course of the ureters and over the bladder, a finger in the rectum may reveal trouble with the prostate, and at the same time the condition of the rectum should be noted, as enlargement of the hemorrhoidal veins may be associated with congestion of the base of the bladder.

The cystoscope should be used, and will reveal the source of bleeding in almost all cases, it may be necessary to use a sound and search for calculus. The cystoscope should be tried before any other instrument, as the blind use of a sound may do much damage if a soft tumor be present in the bladder. The urethroscope may be used to examine the urethra.

In suspected calculus of kidney, ureter or bladder, the X-ray may be used in locating a stone, but calculi composed principally of uric acid will give no shadow.

Hematuria may be either symptomless or accompanied by pain, tenderness, tumor or other symptoms of trouble in the urinary tract. In the symptomless variety the only sign is the presence of blood in the urine. (Fenwick.)

Bleeding from the urethra may be caused by the use of instruments, by senile enlarged prostate, or by acute inflammation or congestion of the prostate. I have observed a number of cases of acute congestion occurring in old hypertrophied prostates; retention of urine resulted, also hemorrhage,

the bladder being filled with clot. In these cases I removed the clot, washed out the bladder, and the swelling subsided in a few days, with restoration of function.

Bleeding may occur from the presence of a polyp in the urethra, and urethral caruncle in the female may be a source of hemorrhage.

The causes of vesical hematuria are tumors, tuberculosis, calculus, foreign bodies and congestion with engorgement of blood vessels at base of bladder. The new growths of the bladder are usually fibroma, papilloma, sarcoma or carcinoma; occasionally myoma and dermoid growths have been reported. Those most likely to cause hemorrhage are carcinoma and papilloma.

Vesical tumors are most frequently located near the orifices of the ureter, and in some instances will obstruct the ureter, with consequent back-pressure and hydronephrosis. Pain and discomfort in the region of the kidney will be present and may lead to mistakes in diagnosis if the cystoscope is not used.

Hemorrhage from vesical calculus usually occurs after exercise and may or may not be accompanied by other signs of stone. Other symptoms when present are pain in the bladder or a reflex pain at the end of penis; sudden uncontrollable desire to micturate, pain and acute spasm terminating the act. In one patient I recall there was sudden stoppage of the flow, and another could not pass urine unless he lay down and turned upon his side. In males without enlarged prostate a calculus may drop into the neck of the bladder and obstruct the flow, as in cases just cited.

In a child, irritation of the prepuce, pulling of the foreskin and perhaps prolapse of the rectum may occur.

Foreign bodies in the bladder, if sharp or angular, are apt to cause bleeding. Hairpins, screws, nails, wire and numerous other articles have been passed into the urethra by sexual pervers to induce sexual excitement, and, getting beyond control, have entered the bladder. Catheters and bougies have been broken off in the bladder, a piece remaining as a foreign body. Such articles are often the nucleus for the formation of a calculus. The cystoscope will reveal the foreign substance, and the patient may admit having introduced it.

The ulcerating stage of tuberculosis of the bladder is often accompanied by hemorrhage. The bleeding is usually slight, and the microscope may reveal tubercle bacilli in the urine. The cystoscope will show a characteristic chronic inflammation and ulceration. The history of the case should be considered in making up a diagnosis.

The failure to find the bacillus tuberculosis is not proof of the absence of tuberculosis, as repeated search will often fail when undoubted tubercular process exists. Contamination by the smegma bacillus should be avoided, as the smegma bacillus will take a stain in much the same manner as the tubercle bacilli.

Congestion of the mucous membrane lining the base of the bladder may cause hematuria, even when no gross lesion exists. I reported a case of this kind at the last meeting of the Ohio State Medical Association. The condition was shown by the cystoscope, and the case was treated by bladder irrigation. There has been no return of the bleeding since, a period of fifteen months.

Renal hematuria will be diagnosed by the cystoscope, the blood being found to come from one or both ureters, but usually a renal hemorrhage is unilateral.

Hemorrhage from the kidney may be produced by tuberculosis of the kidney, new growths, calculus or syphiloma of the kidney.

The tumors of the kidney causing hemorrhage are most frequently carcinoma and sarcoma. Usually the first symptom is sudden profuse hematuria following some violence or unusual exertion.

In most cases, if a new growth has existed for some time, there will be a palpable tumor. Sarcomata may occur at any age, but is more common in young persons. It is sometimes seen in young children. Carcinoma is most often observed in older persons. Malignant tumors of the kidney are most common after forty years of age. The symptoms are tumor, pain, hematuria, loss of flesh and cachexia.

The hematuria of renal tuberculosis is usually small in amount and intermittent, but occasionally profuse bleeding will occur. Pus blood and often tubercle bacilli will be found in the urine. Tuberculosis of the genito-urinary tract, may give rise to a symptomless hematuria in early stage.

Renal calculus will cause pain and tenderness; also a hematuria in a portion of the cases. Stabbing pain induced by deep pressure is supposed to be characteristic of stone in the kidney. The amount of bleeding caused by a renal calculus will depend upon the variety of stone and its location.

Calculi located in the substance of the kidney may cause no hemorrhage, and a smooth stone in the pelvis will not be likely to cause bleeding, while an oxalate of lime calculus is often accompanied by free hematuria. A case of stone in the kidney usually becomes infected after a time, with consequent pain, discomfort and toxemia.

The only sign of renal calculus in a few cases is hemorrhage.

The following causes are productive of a symptomless hematuria: Syphiloma of kidney, back pressure from cardiac insufficiency, constitutional diseases, hemophilia, drugs and some food-stuffs.

Hematuria may occur in measles, variola, cholera and other serious diseases, and is of grave significance.

When hematuria is the result of some constitutional disease or defect, the presence of other symptoms should lead one to suspect the cause.

Articles of diet—asparagus, strawberries, rhubarb and some other substances—may be productive of hematuria. These substances may act by producing oxalate of lime crystals in the urine, with consequent irritation.

The drugs most likely to produce bleeding are turpentine and cantharides. These substances may act when taken internally or from external application, as, for example, in the old fashioned fly blister and by inhalation of fumes of turpentine.

Quinine in large doses may produce hemoglobinuria.

Finally I will mention the so called idiopathic or angioneurotic hematuria, in which, even after the kidney has been opened, no causative lesion can be found. I think some of these cases may be due to simple pyelitis, with pus germ infection, and others to structural disease of kidney, which is not apparent without a microscopical examination.

A case reported by Lane, of New Haven, in the New York Medical Journal, November 2, 1907, will illustrate this point. The patient had hematuria, which was found by cystoscope to come from the left kidney. This kidney was operated upon in December, 1905. No lesion was found to account for bleeding. All hemorrhage ceased for a while, but the hematuria returned later. This time the cystoscope showed blood coming from the right ureter, and no bleeding from the left. Nephrotomy was performed on the right kidney March 29, 1907. Nothing abnormal was found, but a small piece of kidney was excised for microscopical examination. The microscope revealed a mild parenchymatous nephritis.

It is well known that a nephrotomy in these cases is often followed by complete cessation of hemorrhage.

The treatment of hematuria may be stated in three words: Remove the cause.

Tumors occurring in any part of the genito-urinary tract should be removed unless too far

advanced. Tuberculosis of the kidney calls for nephrectomy, providing the other kidney is functioning sufficiently to sustain life.

The treatment of tuberculosis of the bladder is not very satisfactory unless the lesion is small and is secondary to unilateral renal tuberculosis, in which case removal of the diseased kidney may result in a cure of the bladder trouble. Calculi in kidney, ureter or bladder should be removed.

In a case of symptomless renal hematuria, if persistent, a nephrotomy should be performed upon the kidney from which the bleeding is found to come. Cardiac lesions and constitutional disease may be relieved by drugs. In fact, the cause once found, the treatment will suggest itself.

HAY FEVER.

BY J. P. DEWITT, M. D.,
Canton.

[Delivered at Columbus, Ohio, May 6, 1908, before the Ohio State Medical Association.]

In 1819 Bostick, in a paper before the Royal Medico-Chirurgical Society of London, was the first man to describe hay fever and hay asthma. He termed it a periodical affection of the eyes and chest.

Elliotson claimed in 1839 that hay fever is associated with the presence of pollen in the inspired air.

In 1876 Beard, of New York, demonstrated the fact that there were numerous other exciting agents besides pollen, and called attention to the marked neurotic tendency in these subjects.

Helmholtz, himself a sufferer from periodical hyperesthetic rhinitis, as he called it, suggested that the disease was due to the presence of vibrios in the nasal passages, which exhibited periodical activity during the hay season. Helmholtz undoubtedly referred to some form of bacteria under the term vibrios. This was during the year 1869.

Bosworth, in 1886, published a paper in which he argued that the prominent predisposing cause of all cases of hay fever was an obstructive lesion in the nose, giving rise to a vascular dilatation caused by the rarefaction of air in the nasal chambers behind the point of obstruction. That three conditions were essential for the production of the disease:

First.—An obstructive lesion in the nose.

Second.—A neurotic habit.

Third.—The impact of pollen upon the nasal mucous membrane.

Grayson, in his recent work, classifies it as one of the neuroses; he also recognizes the importance of autointoxication from intestinal toxemia upon the vaso-motor centers controlling the circulation of the nasal mucous membrane.

Many modern writers attribute many of the symptoms to neurasthenia, but neurasthenia, *per se*, cannot cause hay fever without the existence of a primary pathological lesion.*

Lloyd says: "There are three factors in the etiology of an attack of hay fever. First, the presence of hypersensitive areas in the nasal mucous membrane; if accompanied by asthma, similar areas are detected in the pharynx. Second, a diseased or at least an irritable condition of certain nerve centers, giving rise to symptoms in the nose itself or in more or less distant parts by reflex action. Third, the presence of pollen."

In 1902 Professor Dunbar attempted to show conclusively by his experiments that there is but one cause for hay fever—the pollen of grasses and certain plants. He obtained a toxic substance from the pollen of certain grasses which he claimed would produce symptoms characteristic to hay fever when applied to persons predisposed to that disease.

I might continue reviewing the literature on this subject for some time and would find it about the same as claimed by the above quoted authorities. I shall devote the remaining few minutes of my time to treatment.

There has been almost as much variation in the treatment of hay fever by different physicians as there has been in the treatment of typhoid fever. I appreciate that a few cases successfully treated do not establish a standard of treatment by a certain method. I do feel, however, that my experience in treating about 200 cases of hay fever during the past ten years by practically the same methods has convinced me that a great many writers on this disease have written from theory and not from practice.

It has also convinced me that this disease should not be classified as one of the neuroses. Very few of my subjects exhibited a neurotic tendency except while during an attack, and if any of the physicians present have been the victims of an attack themselves, as I have been, they can readily appreciate how a man of iron nerve will become hysterical at this season. These patients are susceptible to suggestion, and a great many remedies have been given credit for relief and cure in this disease, as has been done in many other diseases, by the physician's power of suggestion to his patient while prescribing these remedies.

I believe all cases of hay fever, either mild or

severe, have some pathologic lesion of the nasal cavity, and relief of this condition will prevent an attack of hay fever.

We are all neurotics to a certain degree, and we are becoming more so each year. We all breathe the pollen of grasses during the hay season, but very few of us develop hay fever. While a few of my patients exhibited neurotic and gouty tendencies, the majority of them were quite healthy. The fact that a patient begins his attack the 12th or 19th of August, or whenever the date may be, can be explained only by suggestion and autosuggestion, of which we are all more or less susceptible. There must be some pathologic condition of his nasal cavities or an accessory sinus infection before he can have an attack of hay fever.

Very few of my patients were afflicted with adenoids or polypi. When these conditions are present, they must always be removed. A great many of these patients are those whose nasal chambers present upon examination a nearly normal appearance when they are free from an attack. An examination during an attack reveals an entirely different picture.

The turbinates and the mucous membrane of the whole nasal cavities are very much swollen. The turbinates are usually distended to their utmost capacity and are packed up against the septum, completely blocking nasal respiration. They are not brightly hyperemic, but are of a waxy color, and constantly streaming with a thin, serous secretion. This oedematous condition checks drainage and induces pressure upon the nerve terminals. When spurs or deviations of the septum exist, the pressure symptoms are aggravated.

The object of treatment in my cases has been to relieve pressure and to promote drainage. I do not care if the exciting cause is due to the inhalation of pollen from grasses, etc., or if the patient is a neurotic, or if he has sinus involvement or sensitive areas on his septum—the treatment during an attack is to restore nature's method of breathing to a blocked nasal cavity. Temporary relief may be given by cocaine and adrenalin application, which produce local anemia, but by so doing they repel hyperemia, which is probably destroying the bacterial infection. Cauterization of the septum and turbinates, either by caustics or the electro-cautery, does benefit these cases, and probably does so by producing artificial or increased hyperemia.

I have never used Bier's method of producing hyperemia in this disease, but, drawing conclusions from my experience with it in the treatment of other infectious diseases, I feel that great good

might be done by either the elastic bandage around the neck or by the suction method. I presume there are a number of physicians present who have used Professor Dunbar's pollantin, and I shall give them the opportunity of praising or condemning the use of the serum.

The literature has been interesting in the report of so many cases successfully treated. At present it does not appear to be a scientific truth to be able to immunize human beings with a serum made from the pollen of grasses. It does seem possible, however, since Wright's vaccine therapy has been demonstrated to be so truthfully scientific, that a vaccine might be made from the nasal secretions containing certain bacteria that would immunize a patient from an attack of hay fever.

I have seen no literature concerning this method of treatment.

Previous to attacks, hypertrophied turbinates may be relieved by scissors, snare, caustics, cautery or galvanic electricity. During an attack I have seen patients remain comfortable for twenty-four hours or longer after a single application of high frequency electricity applied by inserting an electrode into the nasal cavity. An arc light cabinet treatment or a hot bath will give relief for several hours by its action on the peripheral circulation. Immediate and permanent relief may be given these sufferers by surgical procedures. All spurs, deviations of the septum or polypi should be removed. If there is a disease of the antrum, it should be drained. Enlarged turbinates should have enough removed to insure free respiration. Removal of a portion of the inferior turbinate will give prompt relief by affording drainage to the nasal cavity and accessory sinuses and relieving pressure and its resultant symptoms. Good results are obtained by using caustics and the electro-cautery, but they are not as safe procedures as the removal of these hypertrophies by the use of the snare, saw and scissors.

It is not necessary to completely enucleate the turbinate. The removal of a very small portion is often sufficient, unless it be very much hypertrophied. Removal of a small portion of the turbinate does not cause atrophic rhinitis, as has been claimed by many rhinologists, but it is a factor in preventing this condition.

DISCUSSION.

C. L. Minor, Springfield: The pathology of hay fever, I think, is about as varied as is the treatment, and we are about as successful in ferreting out the pathology as we are in the curative treatment.

As mentioned, there are three positive factors; or, perhaps, four; or, rather three conditions that

are necessary for the development of the symptoms of hay fever. First, the hyperaesthetic area; second, the so-called idiosyncrasy, and third, the exciting cause, the pollen of plants, as commonly thought. Why we should have this hyperaesthetic area in the nose, we have different opinions. The one that appeals to me as most satisfactory is that of faulty metabolism. Why this faulty metabolism should affect the fifth nerve, and this particular branch of the fifth only to the exclusion of the others, I do not believe any one has been able to satisfactorily explain; at least, I am at a loss to account for it in any way at all. As to the neurotic element, I do not agree with the essayist that it is non-existent. I think in practically every case it is existent. I think it is the result of the hay fever, and not the cause. I think, as mentioned, those who suffer from hay fever, and they do suffer from it, have all the reason in the world to have this neurotic tendency, and there must be a certain element in it, since so many patients are able to give not only the day, but the hour and date of the beginning of the attack.

There are some who have tried to work out the pathology from a bacteriological standpoint by examining the secretions in the nose during the attack and after, but with no definite conclusions. I think some sort of bacillus has been found, but it is not always possible to demonstrate it, and others have been able to demonstrate the same organism in all sorts of acute inflammatory conditions in the nose. Some have tried to work out the pathology from the chemical standpoint—that the secretions are excessively alkaline, or excessively acid. In some cases, it is exceedingly acid; in others very alkaline; and others neutral; so that method of reasoning does not pan out. An examination of the mucous membrane of the nose shows nothing except the usual findings in catarrhal conditions in that organ. We are at the present time lost for the pathology of hay fever. If we knew the pathology, we could certainly work out the treatment.

I do not quite agree that every case has some pathological condition of the nose, unless the essayist would grant that every one of us, irrespective of what symptoms we may have, has some pathological condition in the nose. In my own cases, I find they have chronic discharges from the sinuses, or have what has been very common in my practice, spurs of the septum, or hypertrophied turbinates, particularly of the middle turbinal, which presses against the septum.

As to the treatment, I have used pollantin without success. My patients have used all sorts of quack preparations with indifferent results. My method is to correct whatever gross pathological lesions are present, previous to the attack, and in the interim. If there is hypertrophy, I remove the hypertrophied turbinal, or the spur from the septum. If there are chronic discharges, I attempt to get rid of them. This is a preliminary treatment. During the attack, there is nothing that gives me any results, except temporary relief, such as we get from adrenalin chlorid. I would not approve of giving a cocaine solution to a patient to use in the nose, since I have seen two instances of the habit being cause from the spraying of a two per cent. solution in the nose for the relief of hay fever.

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DR. McCORMACK AGAIN IN OHIO

Dr. J. N. McCormack is at present carrying on his magnificent work in Ohio, and it is earnestly hoped that his efforts will bring the much deserved success which they have universally met elsewhere.

The necessity and duty of educating the public along medical lines have become very apparent in the last few years. New cults of healing, "isms" and "pathies" and so-called "sciences" have arisen without number and are rampant all over the land in endeavoring to attract attention and draw followers. Economic questions of sanitation and disease prevention are arising and in order to secure proper legislative action they must be thoroughly understood by the people. The continued fleecing of the ignorant and unwary by the patent medicine proprietors demands no let up in the propaganda so ably started by the Ladies' Home Journal and Collier's Weekly. The indecent advertising so obnoxious in recent years, must be brought to the attention of those, and those only, who can stop it, if they will—the people.

We know of no one better fitted to carry along this campaign than Dr. McCormack, who by his eloquence and acquaintance with the facts is able to present these matters to the public in a way that carries conviction. He has been engaged in this work in an official capacity for some years, and all over the country his progress has been marked with great enthusiasm and a general outburst of interest in medical organization work and general reform in matters connected therewith.

The itinerary has had to be changed somewhat, and the political excitement is rather a handicap, but great results are expected from the splendid meetings which are being held.

This is a great opportunity for Ohio, and wherever it is arranged for Dr. McCormack to speak, it is to be hoped that the medical profession will not only turn out in full force, but advertise the meetings among its clientele and friends so that as large a number of people as possible will reap the benefit of his remarks.

We have been talking education, we have been reading of it, we know the necessity. Now let everybody take hold and make the most of this opportunity.

INTERNAL ANTISEPTICS.

Ever since the discovery of antiseptics and the value of antiseptics in surgery and for external use, internists have sought most diligently for germicides which might be used within the body. There have been two requirements to be fulfilled—the substance must be an effectual bactericide, and, secondly, it must be innocuous insofar as the patient is concerned. The latter stipulation has proven the stumbling block. Germicides are plentiful enough, but very few may be given in sufficient strength to be in any degree effectual as such without doing harm to the patient. Thus the long list of internal antiseptics, so called, is looked upon rather askance; they have been tried and in a large majority found wanting. From recent reports from the Johns Hopkins press, however, it would seem that there are hopes to be entertained of actual progress in this search for the ideal, and hexamethylenamine, formed by the action of ammonia upon formaldehyde and better known, perhaps, under the trade names of urotropin, cystogen, etc., seems by the liberation of formaldehyde to be actively inhibitory to bacteria in the various secretions and excretions of the body and at the same time harmless to the host.

S. J. Crowe investigated the action of this substance by animal experimentation and gives his observations in the Johns Hopkins Hospital Bulletin for April, 1908, as follows:

1. Administered by mouth, the remedy is rapidly absorbed and remains in the circulating blood for twenty-four hours. Apparently the maximum concentration in the blood is reached five to eight hours after administration.

2. It is excreted in the bile, pancreatic juice and directly through the wall of the gall bladder in dogs.

3. It was found in the saliva and milk of dogs after intravenous injection of one gram.

In view of these experimental findings in

animals, it was determined to make a bacteriological and chemical study of the bile obtained from patients with biliary fistula before and after giving urotropin. In four cases in which gall bladder operations were done at the Johns Hopkins Hospital the remedy was administered immediately afterwards in large doses (fifty to seventy-five grains daily). The material aspirated from the sinus before the administration of the drug contained large amounts of various bacteria; that aspirated from the sinus subsequent to the administration of the medication was entirely free from bacteria, and chemical tests showed the presence of large quantities of urotropin or its decomposition product, formaldehyde. In the case of the typhoid bacillus, the rapid disappearance of the organisms was especially evident.

In a case of acute gonorrheal arthritis the medicament was also given, and some hours later the joint was aspirated and pus withdrawn, which, upon chemical test, showed the presence of hexamethylenamine in considerable amount. Cultures proved that the infecting organism was the gonococcus. The dose was raised to eighty grains a day, and four days later cultures from the joint showed a marked decrease in the number of organisms. A third aspiration showed that the coccus had completely disappeared. During this period the clinical condition of the joint improved markedly. The effusion and the acute tenderness rapidly disappeared, but there still remained some periarticular infiltration and limitation of motion. After getting eighty grains daily for twenty-four days, the patient developed painful and frequent micturition, which, however, immediately ceased on withdrawal of the drug.

From these clinical observations Crowe adds the following conclusions to those he drew from his animal experiments:

The remedy has been demonstrated in the bile, cerebro-spinal fluid, synovial fluid, pleural effusion and blood of man.

When given in sufficiently large doses (seventy-five grains per diem), it appears in the bile in quantities which suffice to exercise a decided bactericidal action.

The remedy is probably of efficiency in:

1. Acute infections of the gall bladder.
2. Convalescence from typhoid fever, as a prophylactic of subsequent gall stone formation and to sterilize the gall bladder

and thus prevent the patient's becoming a chronic bacillus carrier.

3. Before gall bladder operations, as a prophylactic.

J. W. Churchman, working in the Genito-Urinary Dispensary of the Johns Hopkins Hospital, has not found any internal medication actually and wholly dependable as destructive to infections involving the tissues.

In simple bacteriurias, hexamethylenamine, methylene blue and salol will speedily cause the disappearance of the bacteria, but in conditions associated with cystitis, for example, while "the pus may diminish, the symptoms improve and the urine clear up, but only occasionally will the infection completely disappear." He advises the use of such antiseptics as a prophylactic measure before cystoscopy, which seems to us a very logical and proper precaution in all cases of instrumentation of the bladder, especially in ureteral catheterization. Churchman concludes:

1. Administration of urotropin, methylene blue or salol renders the urine inhibitive of the growth of the staphylococcus pyogenes, streptococcus pyogenes, *B. typhosus*, *B. coli communis* and *B. proteus vulgaris*.

2. Urotropin and methylene blue are more markedly efficacious (inhibitive) than salol. The choice lies with the first.

3. These drugs effect inhibition of bacterial development rather than destruction of bacterial life. They render urine an uncongenial medium for growth, but not an environment necessitating death.

4. Their effect is weakest on the staphylococcus pyogenes and strongest on the *B. typhosus* and streptococcus pyogenes.—(Johns Hopkins Hospital Reports, Vol. XIII.)

Dr. Howard Kelly, in his "Medical Gynecology," advises the same prophylactic measure in convalescent patients requiring ordinary catheterization. He states that urotropin is useless in tubercular cystitis, not very effective in old cases of any infections, but excellent in prophylaxis and in

fresh infections, especially of the colon and typhoid bacilli.

The value of hexamethylenamine has elsewhere been quoted as a valuable prophylactic measure in the convalescence of typhoid fever to clear up the urine and thus prevent the cystitis and pyelitis occasionally appearing as a sequela.

It would seem also to the writer that inasmuch as it has been suggested that relapses in typhoid fever may be the result of re-infections from the gall bladder, coming on as they do so frequently with the increase of diet, which stimulates a freer flow of bile, often loaded with bacilli, that the exhibition of urotropin during the fourth week of typhoid fever might also be of value as a prophylactic measure in the preventing of relapses.

The only drawback to the use of hexamethylenamine is a certain amount of urinary irritation in some cases, which, however, disappears promptly on the withdrawal of the drug. Large doses in many cases are tolerated without any disturbance.

ARTIFICIAL RESPIRATION IN ASPHYXIA.

The past season has been rather prolific in reports of fatal accidents by drowning, and therefore it may not be amiss to mention the results of some very interesting investigations recently made in England, which should prove of value not only in partial drowning, but in asphyxia from other causes as well.

These results have appeared in a brief but well written article in Collier's Weekly of September 12, by Woods Hutchinson. As the writer states, the explanation of death by drowning is apparently so simple that it would seem scarcely worth the trouble of investigating. One may verify this by attempting to look up the subject in the ordinary works of reference which one has on

hand. The writer consulted over a dozen books on physiology, medicine, special works on the lungs, with only the most meager results. As one of the older writers expressed it, "drowning is merely asphyxia from immersion of the body in an irrespirable medium." In other words, the necessary air is cut off by the filling of the air passages with water, and that seemed to settle the matter. The fact, however, that many cases of death were observed in which postmortem examination revealed but small quantities of water in the lungs, and also the number of quiescent deaths noted in which the victims sank without a struggle or an apparent respiratory effort, led to the belief that the subject might not be so simple after all. This, together with the unsatisfactory results of the ordinary methods of resuscitation, suggested a scientific inquiry, and the English government appointed a commission, presided over by Professor Schaeffer, of Edinburgh, to investigate the subject in order to determine absolutely scientific measures for resuscitating those apparently drowned. One quiescent death seems to be readily accounted for by the fact in many cases of injuries received in the act of falling into the water, accidental contact of the head with the bottom or hard objects of some sort sufficient to render the victim unconscious, and in others of an actual heart failure, due perhaps to psychic causes, as fright or dread.

In the larger class, however, in which the drowning is preceded by violent struggles and repeated submersion, alternating with rising to the surface, careful investigations accompanied by experimentation showed that but a small quantity of water was drawn into the air passages as a rule. This water, however, though differing but little comparatively from mucus, is extremely irritating to the mucous membrane and causes an outpour-

ing of secretion, which is churned violently by the forcible efforts at respiration into a tough foam, which microscopically is said to be made up of millions of extremely minute air bubbles, which en masse occlude the air vesicles and bronchioles, so that, as Hutchinson says, the victim is really drowned in his own secretion. This, further, also demonstrates the necessity of promptitude in methods of resuscitation. Every minute counts, and no time should be wasted in rolling the patient on a barrel, inversion, etc., for the purpose of emptying out the water popularly supposed to have been taken into the air passages. Even if any quantity had entered the latter, no such measure would have any beneficial effect.

According to the article referred to, the commission next investigated the methods of resuscitation in common use, testing them by animal experimentation, and showed the well known Marshall Hall and Sylvester methods to be utterly inadequate and the Howard method dangerous. The procedure finally adopted is described by Hutchinson as follows:

The individual whom it is desired to resuscitate is promptly and without a moment's delay in either loosening clothing, drying, warming or shaking the water out of the lungs, turned upon his stomach upon the shore or other level place, the face being turned to one side so that the nose and mouth are clear of the ground. Then the operator kneels, either by the side of or astride of the patient's hips, facing toward the head, places both outspread hands upon the small of the back, just over the shortest ribs, and pitches his body and shoulders forward so as to bring the whole weight heavily upon the body of the victim. This downward pressure should take about three seconds. He then swings upward, lifting his hands off suddenly and quickly. The elasticity of the ribs and of the contents of the abdomen cause the chest to expand. In three seconds more the process is repeated, and so on indefinitely, making ten or twelve of these move-

ments per minute. The position allows the tongue to fall forward and any mucous or water which may be present in the lungs to readily escape through the mouth. By simply swinging backward and forward, throwing the weight of his body upon the waist line of the victim, any operator of modern intelligence and of most moderate strength, even a delicate woman or a child, can gain a sufficient inflow of air, flowing in and out through the lungs of the patient, to supply him with as much air as would be taken in if he were able to breathe voluntarily. Promptness in beginning the pumping operation is imperative.

This method is founded upon actual and careful study and is shown to really cause the entrance of air into the lungs, the desideratum in these cases. It should therefore entirely supplant the older methods, as often valuable lives may be saved by it which otherwise would be forfeited.

EDITORIAL NOTES

DIDN'T BELIEVE IN HYDROPHOBIA.

There are too many persons who scoff at the warning of medical science. One of these was Conrad Steinbruger, of New York, who didn't believe in hydrophobia. When he was bitten by a dog suspected of being mad, he took no precautions. Three weeks later when he began to show symptoms of the disease, a physician was called in and he was taken to Christ Hospital. The physicians there told him that he had twenty-four hours to live. They spoke from long experience, but he laughed at them and repeated his disbelief in the disease. He died, however, just as they said he would. It was a sad death, because it was needless. Had he accepted the now thoroughly demonstrated theory of the disease in question and taken the precautions now known to be necessary, he would not have lost his life.

The incident ought to be of some value in showing other people who laugh at the doctors that their incredulity is dangerous. It ought to have a wholesome influence on those persons in cities who scoff at the health department and, as far as they dare, disobey its orders. The public sanitary service is not built on mere whims or notions; its foundation is fact which is none the less certain because the logic of it

is not generally understood. In matters of disease, as in everything else, an expert is far more likely to be right than one who is not. The person who scoffs at an expert's warning may be bold, but the chances that he will, as a result, become a corpse are far greater than that he will become a hero.—Columbus Evening Dispatch.

It is with great pleasure that we note the candidacy of the Hon. E. B. Kinkead for Common Pleas Judge. Mr. Kinkead is well-known to the medical profession of Ohio, not only by his high reputation for learning and ability, but more personally from his having acted as its legal adviser during the past year. He has shown a deep interest in medical legislation and in the many problems which confront us at the present time; he has manifested a hearty sympathy with and an intelligent appreciation of our aims toward civic reforms. From our knowledge of him his elevation to the judgeship will be a great gain to the people at large.

STATE HELPFULNESS OF THE BLIND.

By the action of the Ohio General Assembly at its last session, the state took a more helpful attitude with respect to the blind. To study the condition of the blind in Ohio and to devise means for its amelioration, a commission was appointed and is now organized and at work. The first business of that commission is to take a census of the blind which will reveal not only their number, but also their circumstances with respect to health and employment. Little time remains before the convening of the Legislature and so the effort will be to complete the enumeration in a few counties, one of which is Franklin. The members of the commission bespeak for the enumerators the kind cooperation, not only of the blind people and their families, but also of the general public, to the end that a complete roster of the blind may be made and an idea secured of the best way in which they may be helped to lives of happiness and usefulness, if they are now lacking anything in those particulars.

Another purpose is to prevent blindness. That may seem a remarkable proposition, but similar inquiries in other states have shown, it is stated, that one-third of blindness of infants is due to an absolutely unnecessary disease and have led to the belief that two-thirds of the cases of blindness are preventable. If this is true, the field of helpfulness before the commission is doubly attractive, and there will be a special desire on the part of the general public to aid the Ohio inquiry in all legitimate ways.—Ohio State Journal.

The commission has organized a plan of campaign as shown by the copy of a letter sent to a number of the County Societies:

Dear Doctor: The Ohio State Commission for the Blind is endeavoring to obtain a complete cen-

sus of all the blind in the State of Ohio. The only list we have to go by is one we have compiled from reports from various counties, showing the persons who have applied for the pension under the Harper bill. However, as this does not include all the blind by a large percentage, we are asking for assistance from the medical profession, clergymen of all denominations and school teachers, through personal letters, to furnish us names of any blind people they know of.

The Ohio State Commission for the Blind was organized under a bill passed by our last Legislature, and it has for its object the betterment of the conditions for the blind, and we hope that after we have gotten this census, to show the legislative bodies of our state the crying need for assistance for these blind people, that we may be able to establish workshops for employment for the blind in different section of the state; we also will aim to provide visiting teachers to visit blind persons at home to teach them the "blind" type and also some occupation to help them relieve their minds; we will also use every effort under cooperation of the various medical societies of the state, to have strict laws enacted and enforced, that will look towards the prevention of blindness, as all your members probably know the percentage of cases where eyesight might have been saved through proper care and precaution, is appallingly large.

Will you not kindly furnish a list of all members in your society to Honorable Campbell L. Maxwell, Xenia, O., so that he can send a personal letter to each one?

Very truly yours,

EDWARD G. PEASE, Secretary.

We believe that the medical profession is greatly interested in this move, and that it will render every assistance possible. Let each physician make personal reports promptly and much will be accomplished in the short time available before the convening of the next Legislature.

NOTICE.

Every once in a while we receive complaints, often in a roundabout way, that members fail to receive their Journals. This is particularly the case during the few months following the annual meeting, when the new mailing list is made up, and members in arrears are dropped. Investigation shows then that the complainants have not been reported to the State Secretary as in good standing, and their names have accordingly been removed from the mailing list. In some cases mistakes are made, sometimes in this office, sometimes by the County Secretaries, and not infrequently through the negligence of the members themselves. We are always willing and anxious to investigate all cases reported to us, in order to straighten the trouble, if possible, wherever it may be.

Frequently, also members change their ad-

dress and fail to apprise us of the fact, and we are forced to rely upon the postoffice notification which may be quite incorrect. Remember that the Journal appears between the 10th and 15th of each month, and if you fail to receive it, call the attention of your County Secretary to it at once, or communicate directly with the State Secretary. Do not wait three or four months, and then complain—attend to it at once!

CLINICAL NOTE

Cleveland, O., September 18, 1908.

In the Ohio State Medical Journal for February, 1907, we published the data given below in a paper by L. K. Baker regarding the eyes of the East Cleveland school children. Since that date the continuation of that work for East Cleveland and the examination of the eyes of the Lakewood school children has increased the total of examinations of elementary children to 2176. The comparative results are given below:

Notes on the examination of the eyes of elementary school children in East Cleveland and Lakewood, Ohio.

The table on the right includes not only these, but the elementary pupils of East Cleveland and Lakewood, subsequently examined.

	Per		Per	
	No.	Cent.	No.	Cent.
Total examined.....	788	....	2176	....
Total with abnormal				
distant vision	95	13.7	295	13.6
With excessive farsight.	67	8.5	158	7.3
Nearsighted	42	5.6	117	5.4
Having glasses when ex-				
amined	44	5.6	99	4.5

Notes.—During the first year of the examinations most parents obtained aid promptly when the need was suggested to them by the medical examiner. During the past year, owing to the hard times, the response has not been so general.

The boards of education of the villages mentioned have concluded to continue this phase of medical supervision in their schools.

Below are given three typical notes to parents. Three copies are made, one of which goes to the parents of the child, one to the superintendent of schools and one is retained by the medical examiner.

Cleveland, O., December 18, 1907.

Mr. A. T. C., Mars Ave., Lakewood, O.:

Dear Sir—Charles has marked eye strain.

He should be taught the habit of keeping book, pen and pencil fifteen inches or more from the eyes while doing school work. Attention to this may prevent his becoming somewhat near-sighted later in the school course. He should have a well lighted desk top.

Respectfully yours,

LEIGH K. BAKER,

Examiner for the Board of Education.

To Teacher: Please note suggestions to parent.

Mr. H. A., Rosewood Ave.:

Dear Sir—Hazel has eye strain and so much astigmatism that she is very much in need of glasses for school work. She should be taken to some competent eye doctor at an early date.

Respectfully yours.

Mr. J. H. R.:

John's nose and ears are affected by adenoids, which should be removed by some competent nose and throat doctor.

Respectfully yours.

MEDICAL ECONOMICS

Means of giving notice to the public constitutes the art of advertising. There is a wide difference between commercial and medical advertising. The merchant advertises his merchandise, not his business ability. The physician's stock in trade is his ability and skill. Native modesty should not and professional ethics will not permit him to advertise to the public. It is no violation of either to publish his location, office hours, removal or return after a period of absence; these do not pertain to personal attainments. Other notices may appear in relation to public service or treatment of emergency cases and prominent people; such notices may be beyond the knowledge or control of the medical attendant. These instances do not imply unethical conduct of course, yet, the physician who takes advantage of such opportunities to invite and inspire public notices is unethical and guilty of advertising. There is a difference as to whether notices go to the counting room or the city auditor, but in many cases the difference turns upon pay for such service. The license and registration of a physician do not vouch safe ethical conduct. The medical advertiser may have scientific attainments, but his unethical conduct classifies him with the charlatan. The quack may be licensed and otherwise legally qualified. It is difficult to make distinction where there is so little difference. The people cannot do it from the notices in public prints or from the "literature," reprints, circulars, etc., sent through the mail. The old-time mountebank has disappeared—in his place are found the vender of medicine and the licensed physician who advertises. The medical advertisers are often members of the county society. Medical ethics are violated in and out of the organized profession. The question naturally arises: What does the organized profession stand for? In scientific pursuits it is abreast the progress of the times; in advertising ethics little or nothing is done except to

criticise the man who pays for his notices. Some societies have adopted by-law regulations to check the free news item advertiser within their ranks. They have at least declared their condemnation of the unethical practice.

All agree to the organized effort to secure legislation to prohibit the advertising of vene-real specialists. Not all county societies are willing to place the same strictures upon their members. Means of public notice are reserved as a prerogative, providing they do not mediate through the counting room. And the practitioner who pays for his ads is not eligible to membership. Who is ethical?

The address in medicine of Dr. George H. Butler of the Mississippi Valley Medical Association at its Columbus meeting has been refused a place in the transactions by the Publication Committee. His attack upon the policy of the A. M. A., as expressed by one of its standing committees, met the disapproval it so richly deserved.

The Census Bureau reports that five million women—one out of every five—work for wages. The following list shows increase of women in professional life:

Occupations.	No. in 1890.	No. in 1900.	Increase Per cent.
Lawyers	208	1,010	385
Architects	21,214	85,912	305
Clergymen	1,143	3,405	197
Nurses	41,396	108,976	163
Journalists	888	2,193	148
Physicians	4,557	7,399	62
Actresses	4,491	6,819	51
Musicians	34,435	52,257	40
Artists	10,775	10,989	2

It is noted that the number of women entering the legal profession, 385 percent increase for the decade exceeds those entering the medical profession, which registers only 62 percent increase; while the nurse's profession, so much more akin to medicine than to the law, had an increase of 163 percent.

Current events show that some men in the United States Senate use their legal ability to protect trade interests as opposed to those of the public. The medical profession of Ohio is possessed of a candidate for Senator whose ability fits him to protect the interest of the people regardless of the trade interest. Protect the public health interests by working for the nomination of Dr. C. A. L. Reed.

In preparing for debate it is well to see that the "rip-cord" is working. To get down and out of an argument safely at times is of more importance than the "weighing off."

Commercial interests in professional life tend to the destruction of ethical standards. Professional interests, too, must suffer. The doctor with a side-line business is apt to get left in the rapid march of medical progress. The laity act on the presumption that the doctor who deals in real estate, dry goods or securities, is less interested and less competent in medical practice. The fact is medicine requires all of one's time. Reincarnation is necessary to a full expectancy of medical knowledge. One short life is kept quite busy by medical study without the indulgence of side-line avocations.

It lies within the usefulness of the State Association to institute means of medical defense against malpractice suits brought against individual members. This is all the more urgent when it is known that 97 percent of these suits are prompted by motives of blackmail. Organized resistance will reduce the number of malpractice suits. Only one case out of twenty-seven defended by the New York Medical Society was decided in favor of the plaintiff. The Ohio State Druggist Association maintains a legal defense organization. A defense organization auxiliary to the State Association might well be instituted for the protection of its members against the miscarriage of justice.

Physicians not registered at the office of the Probate Court are not complying with the statutes. To meet legal requirements a physician must register with the State Medical Board and with the probate judge. This fact should be observed before bringing suit for fees. A legal status before the court implies full compliance with the law requiring registration.

Owing to the recognized use of the X-ray in detecting fractures and foreign bodies by skilled physicians, the question before a jury in a suit for malpractice, as to whether this aid had been

used, will arise, especially in localities where such aid is available. Radioscopic examinations are available in most hospitals. The physician will do his duty by calling attention to the desirability of having the examination made.

The attitude of the State Association toward Senator Foraker should be maintained. His offensive record in the United States Senate in favor of trade interest, which caused the medical profession to discard him long ago has recently caused his voluntary withdrawal from the party campaign to conduct one in his own interest. There should be a united effort among physicians to submerge him from public life. His efforts to defeat the pure food and drugs act alone is sufficient warrant for his retirement. In every instance where the Republican nominee for the Legislature refuses to declare himself upon the senatorial issue vote for the Democratic candidate.

A PERTINENT CRITICISM.

The places selected for section meetings were the best for acoustic properties known, and yet not one speaker in ten could be distinctly heard beyond the tenth row of seats.

Why was it? The indifference of the essayist to cultivate a speaking voice. Those accustomed to speaking could be heard plainly throughout the halls. What an opportunity wasted! The members can have a chance only once in six years if division of numbers is considered and nine out of ten waste this opportunity.

What about the thousands of members who attend to hear these men talk and find it to be a medical soliloquy?

How many times will the committee entrusted with the selection of the program invite these men to repeat their efforts?

Any man who will accept a place on the program owes it to his audience to deliver his production in a manner to please, and hearing is one of the points in pleasing. If a man is too weak or without sufficient lung power, he has no place on the program. (The tuberculosis specialists seemed to be strong enough.) Let the diffident, over-modest and retiring essayist go hire a hall until he learns to force his words beyond his mustache. An opportunity of a lifetime was lost to many on the program of the A. M. A.

On Wednesday afternoon, when Drs. Lund, Mayo, Deaver, Haggard, Maury and Porter were on the program, not less than 3000 people were present in Orchestra Hall.

Could anything be more inspiring to an essayist than that?—Editorial, Iowa Med. Jour.

CURRENT MEDICAL LITERATURE

J. E. TUCKERMAN, M. D., Cleveland.

CARROT SOUP FOR DIGESTIVE
TROUBLES OF INFANTS.

Moro (*Munchener medizinische Wochenschrift*, August 4, LV, No. 31), found that newborn guinea pigs died in a few days of digestive troubles if fed only on cow's milk, but that the addition of carrots checked the symptoms. Applying this fact to the treatment of infants, he obtained excellent results in forty-eight cases. He boils the carrots and passes them through the finest wire sieve, adding about 200 c.c. to one liter of meat broth made from 500 gm. beef and bones. The carrot soup is made fresh each day and represents from 235 to 260 calories to the liter. This supplies nourishment, while it causes complete transformation of the intestinal flora.—Via J. A. M. A.

PHYSIOLOGIC ANTAGONISM BETWEEN
ACONITE AND BELLADONNA.

Speirs (*British Med. Jour.*, Aug. 15, 1908) reports the case of a patient who took by mistake half an ounce of a liniment composed of chloroform, aconite and belladonna. The patient took 53.3 grains of aconite root, which represents one-fourth grain of aconitine, of which one-sixteenth grain has been known to be fatal. He also swallowed forty minims of fluid extract of belladonna (B. P.), which is equal to 0.3 grain of the total alkaloids. This would represent approximately thirty times the official dose of atropin. Of chloroform he took forty minims, about eight times the official dose. The interest in the case lies in the fact that the lethal effect of a large dose of aconite was abolished by the simultaneous action of a large dose of belladonna. Muscular weakness, numbness of the extremities and tendency to complete collapse were the only purely aconite symptoms observed. Salivation, which is usually present in aconite poisoning, was absent, and the usually contracted pupil was overcome by the action of the atropin. Finally, the intensely depressant action of aconite on the central nervous system was counteracted by the stimulating influence of the belladonna. Spiers declares that the obvious lesson to be drawn from the case is the great value which should be attached to hypodermic injections of atropin in aconite poisoning.—Via J. A. M. A.

[It is interesting to note in this connection that comparatively large doses of atropin are often recovered from, particularly when taken

by mouth, as they usually are. This may well be due to the drug being taken on a full stomach or one containing more than the usual amount of mucous. We are minded of a patient who took by mistake one-seventh grain for an annoying, profuse watery discharge from nose and mouth during an "attack of cold." Allen (*New Orleans Med. & Surg. Jour.*) reports having given in six hours a total of one-eighth grain hypodermically for a severe intestinal colic, accompanied by purging and vomiting. Jepson (*West Virginia Med. Jour.*, Jan., 1908) reports his personal experience, having taken one-eighth grain (dispensed through the druggist's error for codeine) in a cough mixture. He cites a case of Dr. Griffiths where a child of ten years took two and one-half grains in one dose, yet recovered; and also cites Dr. Fothergill, of London, as having purposely given one grain hypodermically in a case of opium poisoning, with recovery.—Ed.]

THE PASSING OF "THERAPEUTIC
NIHILISM.

It is a relief to observe that the constant efforts of such men as A. Jacobi, of New York, and many others to disabuse the medical mind of its non-belief in drugs have been felt, and that now intelligent use of drugs is again in the ascendency. The *Kentucky Med. Jour.* (August, 1908), in an editorial entitled "Give Medicine Wisely," says:

"It is wonderful how much can be accomplished for the relief of pain and disease with drugs. In many cases fresh air, wholesome food, sunlight and exercise keep or restore sound minds in sound bodies, but when actual disease conditions exist superinduced by the toxins of some profound infection we turn for succor to the drugs, which, properly administered in sufficient dosage to produce results, tide the weak and failing heart, the tired, wandering brain, the enfeebled, smothering lungs over the emergency and give the wonderful laboratories of our patients' bodies the time necessary to produce antibodies.

"Drugs must be properly administered. The nauseating messes once popular should be discarded because their administration is unnecessary. Potent preparations should be used. When drugs are combined one should know the individual effect of each ingredient, the chemical end-result of each in the prescription and the therapeutic purpose of the combina-

tion. No one can possibly give a preparation, single drug or poly-combination the contents or purposes of any ingredient of which he is ignorant. If you know nothing, give nothing. The only drug nihilist, with apologies to Osler's imitators, is the man too ignorant or too lazy to know their uses.

Give your patients drugs, if they need them, in sufficient dosage to produce results. To do this you must know what to expect. If you do not understand the effect of digitalis or aconite or strophanthus or nitrite of amyl or chloral on the heart, study, study, study, until you learn, and if still in doubt have the courage to call in consultation some one who does know and find from him how he learned it. One patient will require three drops of fluid extract of digitalis and will thrive on it, while another's heart fails to respond to ten or twenty drops.

Let those who do not know the use and effect and dosage of the potent drugs get busy and learn them and we will hear less about therapeutic nihilism and similar nonsense."

THE RELATIVE VALUE OF FORMALDEHYDE DERIVATIVES AND OF SOME OTHER ANTISEPTICS.

Sollman (J. A. M. A., Sept. 8, 1908, p. 818) reports a series of experiments on the liberation of antiseptic radicals in solutions and in the body; on their effectiveness as antiseptics, and gives the following comparative results with other antiseptics in his general conclusions:

"1. The methylene radicle is transformed very readily into formaldehyde with some compounds; much more difficultly or not at all with others.

2. The formaldehyd thus liberated is completely oxidized in the human organism and does not exert any antiseptic action on the urine.

3. Formidin is neither decomposed nor absorbed to any appreciable extent in the intestine.

4. Hexamethylenamin is the only reliable urinary antiseptic (by mouth) of the various substances tried. The salicylates (sodium salicylate, salol, novaspirin) have a distinct but much inferior preservative effect. The following are practically useless: Boric acid, citarin, formidin, iodomuth, sodi-forma-sal, sodium benzoate and sodium phenolsulphate, tannoform, tannopin and ur-a-sol.

5. As intestinal antiseptics, the most efficient drugs appear to be bismuth subnitrate and creosote; also novaspirin and ur-a-sol. These

are closely approached by tannoform and iodomuth. Distinctly inferior are formidin, salol, guaiacol carbonate, tannopin and glutol. Guaialiu appears nearly useless.

6. As relatively insoluble wound powders, the greatest antiseptic power appears to be possessed by betanaphthol, boric acid, iodoform, quinin sulphate and xeroform. These are closely approached by acetanilid, bismuth subnitrate and orphol. Somewhat inferior are chloretoue, formidin, iodoform and ur-a-sol. Distinctly inferior are glutol, guaiacol carbonate, tannoform, tannopin, tannin and salol. Not antiseptic are cerium oxalate, charcoal, chalk and zinc oxid.

7. Of all the products examined for antiseptic value, hexamethylenamin is the only one which offers undoubted advantages over the older antiseptics. This statement is not intended to reflect on the antirheumatic value of the salicylic products or on the astringent value of the tannin products."

Of the effects of certain drugs taken by mouth he says further:

"Hexamethylenamin rendered the urine strongly antiseptic; novaspirin, salol and sodium salicylate rendered it feebly antiseptic. None of the other drugs had any discernible effect on the keeping qualities of the urine.

The urine did not contain any free formaldehyd with any of the drugs. Formaldehyd was formed in the hexamethylenamin urine, but in none of the others. The formic acid excretion was not increased by any of the drugs (save possibly a trace with hexamethylenamin).

The urine furnished evidence that ur-a-sol, sodi-formasal and novaspirin were absorbed, either as such or with decomposition; that iodomuth was absorbed to a slight extent only (with decomposition); that formidin was not absorbed; there was no definite evidence as to tannopin and tannoform.

The urine did not furnish any definite evidence of the decomposition of tannopin, formidin, ur-a-sol, sodi-formasal, citarin, novaspirin or tannoform; idiomuth was decomposed to a slight extent only.

The taste of ur-a-sol and sodi-forma-sal is markedly objectionable."

BREAST MILK BEST FOR INFANTS.

Herman (editorial, Arch. of Pediatrics, Aug., 1908) very rightly says:

"Infant feeding is a song of many stanzas, but the refrain remains always the same—'cow's milk is not woman's milk.' The fact

that breast milk is a hundred times better than any cow's milk is constantly dwelt upon and brought home by stating that very few babies die on the breast, and fully ten times as many on the bottle. Those who are forced to use cow's milk are advised to get the small bottles at the milk depots, or, when this is not possible, to use the very simplest form of home modification. Almost all the methods usually given, although easy enough for a physician, nurse or intelligent mother, are too complicated for most mothers."

THE CHARACTERISTIC SYMPTOMS OF DUODENAL ULCER.

Moynihan (Med. Press and Circular, London, July 22, 1908) considers hemorrhage and perforation, described in text-books, as symptoms not of duodenal ulcer, but of neglected duodenal ulcer. The symptoms are as follows:

"The patient tells you that he has certain definite attacks, and if you take the history given in detail, letting the man tell his own story, he will give you the impression of having read something which has been written about duodenal ulcer, which he is recounting to the best of his recollection to please you. He says that his trouble comes on in attacks, which are nearly always worse in winter than in summer, and are very apt to be precipitated by a chill. Let us follow the patient through the day. He makes a meal at 8 in the morning, and from two to two and one-half hours after it he is fairly comfortable. It is his best time. At the end of that time he has a feeling of discomfort in the epigastrium; he feels full and heavy, and may get some relief from the belching of gas. Some of these patients develop a habit of belching. They may bring up a very sour fluid, which tastes very bitter and acid and makes the mouth dry and the teeth chalky. This pain gradually increases until the next meal time comes. To this I some years ago applied the name of "hungry pain." At the next meal the patient almost instantly gets relief, and that relief persists for two or three hours again. He probably eats a heavy dinner and will nearly always tell you he has something before he gets into bed—a glass of milk or a cup of cocoa and a biscuit. He sleeps comfortably until he wakes about 2 a. m. He gets relief from nibbling a biscuit, which he keeps at the bedside. The pain is found to be most relievable by something stodgy and indigestible. Taking an alkali relieves the pain; so will emptying the stomach by washing it out. If these symptoms which I have described

are recurrent, you can diagnose duodenal ulcer."

As a differential point of "absolute significance," patients with gall stones nearly always have a spasm of the diaphragm with a catch in the breast in the attack of pain. Further in case of gall stones the serum of the blood allowed to settle in a capillary tube will show a perceptible deepening of its tinge, although the eye, stools or urine may not show the jaundice color.

BOOK REVIEWS

PULMONARY TUBERCULOSIS AND ITS COMPLICATIONS. By Sherman G. Bonney, M. D., Professor of Medicine, Denver, and Gross College of Medicine, Denver. Octavo of 778 pages, with 189 original illustrations, including 20 in colors and 60 x-ray photographs. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$7.00 net; half morocco, \$8.50 net.

This work is unmistakably a great addition to medical literature; it is monumental, and in it one finds up to the present the last word on the subject. While special stress is placed upon the pulmonary infection, the author considers tuberculosis from every point of view, and all seats of its development, in order to show the frequent relation of the extra pulmonary forms both as causative and resultant factors.

In a work of so much excellence it is difficult to comment in detail. Part I is taken up with etiological considerations, the characteristic of the tubercle bacillus, its distribution, mode of entrance, heredity, racial effects and pathologic anatomy, constituting an admirable introduction to the following chapters:

Part II treats of the symptomatology in a thoroughly systematic and eminently satisfactory manner. Part III considers in considerable detail the general physical signs and methods for their recognition leading up to what the reader considers one of the most important sections of the volume, Part IV, which discusses "Diagnosis and Prognosis." Under the former, the latest developments and newest tests are mentioned. Under the description of the employment of the Roentgen rays, some very excellent illustrations of radiographs are shown which add greatly to the text.

Part V considers as complications unusual types and the various extra lesions already referred to, showing the possible involvement of practically every tissue in the body.

Part VI includes nearly the remaining third of the book and is devoted to a very thorough treatise on the treatment, prophylactic, general and specific, as shown in the latest approved methods.

As a whole the book is remarkably complete, and while exhaustive, the style is as clear and graphic as to hold one's attention throughout. The illustrations are good, and chiefly from original photographs, with also some excellent colored plates.

CONSUMPTION—HOW TO PREVENT IT AND HOW TO LIVE WITH IT. Its nature, causes, prevention, and the mode of life, climate, food, and clothing necessary for its cure. By N. S. Davis, A. M., M. D., Professor of Principles and Practice of Medicine, Northwestern University Medical School, Chicago; Physician to Mercy and Wesley Hospitals; Member of the American Medical Association, American Climatological Association, Illinois State Medical Society, Chicago Medical Society, Chicago Pathological Society, Chicago Neurological Society, Chicago Academy of Sciences; Fellow of the American Academy of Medicine; Author of a Hand-Book on "Diseases of the Lungs, Heart and Kidneys," and a treatise on "Diet in Disease and Health." Second edition, thoroughly revised 12mo. 172 pages. Bound in extra cloth. Price, \$1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This is an excellent little work to put in the hands of our patients. It is eminently practical and lucid, and will help greatly in educating the laity in regard to tuberculosis. Many patients are more amenable to treatment if they understand the "reason why," and these are very well supplied in this little volume.

The two chapters on climate with indications for the choice of high or low altitudes, moist or dry regions are particularly good. Most patients think that all that is necessary is for them "to go west."

The chapters on hygiene are also excellent; the last chapter of the ten in all refers in part to the medical treatment, very briefly as is proper in such a work, and referring the reader to his attending physician for proper instructions along these lines.

MEDICAL GYNECOLOGY. By S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; half morocco, \$6.50 net.

This volume should be a welcome addition to the library of the physician in general practice who necessarily meets many patients with minor gynecologic ailments. There is too much of a tendency to consider all women possessing any pathologic conditions of the pelvic organs as subjects for hospital treatment, too often surgical in character. Probably many women

today refrain from seeking medical advice, or are driven to the osteopath or christian scientist and others of like ilk by the too ready suggestion of the hospital, with the possibility of operation. Unquestionably surgical measures may be obviated in many cases by intelligent office treatment in the early stages; the limitations, however, should be always carefully and clearly kept in mind. We believe the author of this work has endeavored to do this, pointing out when surgical interference is necessary, and emphasizing the necessity of and method for, the early diagnosis of conditions requiring prompt operations, such as neoplasms, ectopic gestation, inflammatory conditions of the adnexa, etc.

The chapters on dysmenorrhea, constipation and gonorrhoea are especially to be mentioned. The work is profusely illustrated, and the style is good.

CONSUMPTION—ITS PREVENTION AND CURE WITHOUT MEDICINE, with chapters on sanitation and prevention of other diseases. By Chas. H. Stanley Davis, M. D., Ph. D., Member of the New Haven County Medical Society; Connecticut State Medical Society; American Health League. Second edition enlarged. E. B. Treat & Co., New York City.

The appearance of a second edition of this little work in a few years certainly seems to point to popular approval of its character. It is stated to be primarily for the instruction of the public in regard to pulmonary tuberculosis and the main principles underlying the rational of the modern method of treatment, yet we feel that it volunteers information that is hardly necessary for the public to know, and which will tend to make the book too much of a "self cure."

It absolutely condemns the tuberculin test for diagnosis, stating "There is a practical agreement that its use is unjustifiable," with which dictum we cannot agree.

The first half of the chapter on "Treatment with Drugs" is very good, but we cannot see the necessity for discussing with the laity the advantages or disadvantages of creosote and derivative, cinnamic acid, cacodylic acid or the serum treatment, and there is danger of such discussion misleading some readers into the idea that such drugs should never be employed in the treatment of consumption.

There are many points of value about the book, especially on the hygiene, diet and climate, but it illustrates again the difficulty of writing for the laity and avoiding technicalities.

COUNTY SOCIETIES

SECOND DISTRICT

"Sparteine: Its Dosage, Physiological Effects and Therapeutic Uses," abstract of paper read before the Shelby County Medical Society August 6, by Thos. C. Cable, Pemberton. The doctor said in part:

"Sparteine is one of our most valuable remedies. While its properties may be well known, its dosage is not. Owing to this fact it is not generally used by the profession. It is a remedy when used in the proper dose that can be relied upon to produce the desired effect with but little or no danger of untoward results. Sparteine is the alkaloid from *Cytisus Scoparius*, our common broom corn. Scopareine is the alkaloid from the same source that acts upon the kidneys. With the latter I have had no experience.

The dose of sparteine is unusually stated at one-sixth to one-third grain. The U. S. P. gives one-fifth grain, and hypodermically the accepted dose is one-tenth to one-fourth grain. These doses are small and would most likely cause anyone to soon discard the use of the drug.

Barthalow and Shoemaker are the only authors, to my knowledge, who recommend anything like the proper dose. They state the proper quantity to be from one-half to two grains. I find that two grains, by the stomach, is as small a dose as can be depended upon, and one-half grain hypodermically is a fair dose, but there is no reason why two grains should not be given in this way, because it is as nontoxic as quinine and as certain in its effect.

In my opinion, it, above all other drugs, deserves to be classed as a heart tonic. It does not raise blood pressure by contracting the arterial system, as does digitalis; neither does it dilate the arterial system and sometimes producing marked depression and nausea, as *veratrum viride*, but it adds to the tone of the heart muscle, as does digitalis, reduces the frequency, increases the force of each beat, but instead of contracting the arterial system it dilates it, thus offering less resistance to the onward flow of the blood.

Its effects are most marked on the arterial capillaries, both superficial and deep, the pulse becoming soft, full and compressible. Its action is tolerably prompt if given hypodermically, being well marked within an hour and lasting from six to twelve hours. It is the best remedy I have ever used to correct irregularities of the heart action. Its sustaining effects

make its frequent administration unnecessary. An initial dose of two grains should be given, and if necessary repeated in two or three hours, after which the same dose need not be given but every four to six hours.

It is the ideal heart tonic in pneumonia, relieving the overworked heart, the high blood pressure and the pulmonary and general venous congestion by decreasing the frequency of the pulse while increasing the force by increasing the tone of the heart muscles, at the same time dilating the arteries, thus reducing blood pressure and relieving the heart of much of its burden. By improving capillary circulation in the lungs it assists in the oxygenation of the blood, at the same time acting as a diuretic. I find it a drug certain in its action and one which merits further investigation.

FOURTH DISTRICT

The Wood County Medical Society met August 19 at Perrysburg. The program was as follows:

"The Medicine of Forty Years Ago," J. C. Lincoln; "The Surgery Forty Years Ago," J. H. Rheinfrank; "The Obstetrics of Forty Years Ago," W. H. Tuller; "How We Bled Them in the Sixties," C. P. Jones; "The Old Black Swamp," J. D. Whittaker; "Early Medical Education," S. M. Cook; "When Diphtheria Was King," A. G. Henry; "Diagnostic Methods of Years Ago," I. H. Mannhardt; "The Old Maumee Valley Medical Society," I. S. Bowers.

FIFTH DISTRICT

The fifty-second regular meeting of the Lake County Medical Society was held Monday, September 7, 1908, at the Parmly Hotel, Painesville. The program was as follows: Reports and presentation of cases; miscellaneous business; "Alcohol," A. B. Howard, former superintendent of State Hospital, Cleveland.

A joint meeting of the medical societies of Lorain, Seneca, Huron, Sandusky, Ottawa and Erie counties was held at Cedar Point on the afternoon of August 26. There was a good representation from each of the societies, and the meeting was full of interest. Martin Stamm, of Fremont, presided at the meeting.

The first paper was by S. E. Simmons, of Norwalk, who read the new law in regard to county tuberculosis hospitals and talked on how best to conform to the law in each county. He advised each society to confer with their county commissioners as to the best arrange-

ment in their particular county. Owing to the public aversion to proximity to such hospitals they should be placed on infirmity grounds.

In the discussion Charles D. Graefe told of the arrangements for a joint meeting with the commissioners in Erie county.

In Lorain county the Medical Society has established an Anti-Tuberculosis Society, which is educating the people on the subject.

Dr. Stamm spoke of the use of awnings, by which a patient could have his head in the pure air while his body would be in the warm room.

Dr. Simmons closed by emphasizing the grading of cases, and incidentally spoke of sanitariums as being for incurable cases, while sanatoriums are for curable cases.

"The Medical Examination of School Children" was the title of H. M. Metcalf's paper. Since the state enforces compulsory education, it ought to see that the pupils are in health and able to do their work. Many countries and most of the states have medical supervision of schools. The work is along the lines of defects in eyes, ears, nose and throat, vermin, skin diseases and infectious diseases of any kind. About 40 per cent. have defective eyes, the younger children averaging about as the older ones do.

Adenoids cause deafness and dullness of intellect. In New York the school for backward children had eighty-one children operated on for adenoids. Dental caries, with consequent poor mastication of food, is such an evil that Strassburg instituted a dental clinic for school children.

In medical inspection it is important that small printed slips should be given the parents conveying information in regard to the disease, so that they may be enlightened. Good, healthy citizens are worth spending money for.

In the discussion Dr. Gibbon, of Tiffin, said that the physician should determine the mental capacity of the children and that this should be included in the medical examination.

Dr. Gibbon, of Tiffin, read a paper on "The Localization of the Grosser Lesions of the Nerve Centers," in which he outlined the topography of the brain and traced the nerve fibers through the internal capsule and the medulla, showing how lesions in these places affect the body.

Fred Ingraham, of Curtice, read a paper on "Ectopic Gestation." It is primary when it occurs in the tubes, and ovarian when in the ovary. The cause is chronic salpingitis. It ends in rupture of the tube, death of the foetus,

but the mother's fate is variable. Hematocele is due to ruptured tube.

In the discussion Dr. Graefe thought that it is best to operate soon, for by delay there are repeated hemorrhages, which exhaust the patient's strength. Dr. Stamm thinks that surgical inactivity is best in cataclysmic cases. Dr. Ingraham closed by giving a report of a case.

"Peritonitis" was the title of a paper by Charles Graefe. The term idiopathic peritonitis is a confession of ignorance. The sources of infection are the appendix, the gall bladder, the fallopian tubes. The large peritoneal surface absorbs infection rapidly, particularly if it has been damaged in any way. Evacuating the pus, cleansing the peritoneal surface and the local use of sterile horse serum to augment the defensive powers of nature is the best treatment. The modern use of serums to assist the organism to resist the inroads of bacteria was also brought out.

In the discussion Dr. Stamm advocated the Ochsner treatment of waiting several days before operating, unless the case is seen within thirty-six hours. Dr. Graefe stated that many lives were lost by carrying the Ochsner method to extreme.

A paper by M. O. Phillips, of Fremont, on "Tetany," which was a report of two cases, was interesting. The spasms of hands and feet were present and are due to gastro-intestinal irritation.

A dinner at the Breakers followed, after which toasts and good stories rounded out a well spent day. It was voted to make this meeting an annual event.

SIXTH DISTRICT

The Union Medical Association of the Sixth Councilor District convened in regular session at Youngstown on Tuesday, August 11, 1908. President W. M. McClellan, of Ashland, was in the chair. The meeting was held in the Elks' club room, and lunch was served in the dining room. All had a very delightful time. After disposing of a few preliminary matters, the following program was carried out:

"Random Thoughts on Medicine and Surgery," by S. P. Wise, Millersburg. There has not been as much progress in the science and art of medicine and surgery in the past quarter of a century as we have reason to expect. Considering the many brilliant discoveries which have characterized modern medical research, the medical graduate has a smattering of many things which belong to the specialties, which can avail him nothing in his private practice,

It is a question whether more correct diagnoses are made today than were produced under the old methods in former years. Surgeons have not advanced much in the art of diagnosis. Exploratory surgery has done away with the necessity of diagnostic skill. Prognosis is rapidly becoming a lost art. The science of therapeutics in the hands of the general practitioner has retrograded amazingly. The ranks of the profession are full of skeptics and nihilists.

The adoption of the germ theory of disease has had a tendency to narrow the student's conception of disease instead of giving him a broader and more comprehensive view of pathologic processes. We are paying too much attention to the 'seed' and not enough to the 'soil.' Many wounds healed without the presence of pus before asepsis was thought of.

The immunity or vital resistance which normally exists in the tissues and fluids of the body constitute a more efficient safeguard than the most elaborate technique ever devised by human ingenuity.

It is generally conceded that the systemic disturbance is not so much due to the presence of bacteria as to the ferments which they secrete. This is nothing more nor less than the zymotic theory of disease, which was old forty years ago.

Aseptic fever is due to the absorption of ferments, which are liberated from retained clots or bruised tissues which are retained in a wound.

We should not forget that man is neither a rabbit nor a guinea pig, nor does his internal economy supply the precise conditions of a bacteriological incubator.

The doctrine enunciated by Virchow that life all exists in the cell has never been refuted.

It would be difficult to prove that our bodies are not composed of an enormous aggregation of specialized microbes. Pathogenic organisms are everywhere from ordinary bacteria and are the creatures of conditions and environment.

I believe that if a large number of people, both male and female, could be rendered absolutely free from the germs of disease and could be placed on a far distant island where human beings had never existed, and were left to propagate in an absolute state of isolation, in the course of time the inhabitants of that island would be afflicted with all the contagious and infectious diseases that humanity is heir to, and surgeons would have to contend with infection as much as they do now wherever human beings are found.

"Etiology and Pathology of Chronic Interstitial Nephritis," by H. E. Welch, Youngstown.

"Arterio-Sclerosis and the Arterial Changes in Chronic Interstitial Nephritis," by C. E. Held, Akron. The character of the relationship existing between arterio-sclerosis and chronic interstitial nephritis is shown (1) by those cases where the induration is brought about by a sclerotic condition of the blood vessels. The arteries are in these cases the first part of the kidneys to show degenerative changes with a proliferation of the connective tissue in their walls. This change interfering with the parenchyma of the organ, atrophic nephritis results. This condition is known as arterio sclerosis of the kidney. (2) By those cases where the induration results from a chronic productive inflammation of the connective tissue of the kidney, and with it, or be a sequella hypertrophy of the heart and a continued rise of blood pressure, which condition produces a sclerotic condition of the arteries of the kidneys and throughout the body. This condition is spoken of as a chronic interstitial nephritis, with a secondary arterio-sclerosis. (3) By those cases where the two conditions—arterio-sclerosis of the kidney and chronic interstitial nephritis—develop independently and simultaneously from the same or different causes—and induration of the kidney resulting.

"Uremia—Diagnosis and Treatment," by George J. Waggoner, Ravenna. Dr. Waggoner was unavoidably detained, so his paper was read by B. H. Nichols.

Particular attention should be directed to the presence of single symptoms, i. e., the development of persistent headache or of prolonged vomiting, should arouse a suspicion of a possible uremia. An examination of the urine is indicated in all cases where such manifestations are present.

Cerebral affections are often confused with uremia, as are also some acute infectious diseases, especially typhoid fever, miliary tuberculosis, and septico pyaemia.

The coma of uremia must be differentiated from that following opium and alcoholic intoxications, and from the comas in epilepsy, diabetes, and apoplexy.

Care should be taken in distinguishing between the convulsions in uremia and those of epilepsy, and a significant point in the differentiation is the rise of temperature in the latter.

In convulsions, due to action of lead on the kidneys, an examination of the urine will show

an increased amount of urates in proportion to the quantity of urine secreted.

In the treatment of uremia, hygienic, dietetic, climatic, and all other measures conducive to its prevention are of first importance.

When firmly established, the elimination of the poison through the skin, bowels, or kidneys is the object desired, using such remedies as are best suited to the case in question.

When medicinal treatment has failed, fixation and decapsulation is indicated in certain cases under sixty years of age.

At this juncture, Councilor T. Clarke Miller introduced Brooks F. Beebe, of Cincinnati, Chairman of the Council. He also made motion to make Dr. Beebe an honorary member of this Association, which carried unanimously. The foregoing papers were then discussed by Drs Zininger, Beebe, and Miller.

After lunch, F. L. Watkins, from the office of Secretary of State, called attention to an act passed by the General Assembly on May 5, 1908, to establish a Bureau of Vital Statistics and to provide for the prompt and permanent registration of all births and deaths occurring within the State of Ohio.

"Ocular Complications in Chronic Nephritis," by Arthur J. Hill, Canton.

Dr. Hill said in part: Interstitial nephritis is the most common cause of ocular complications.

Ocular disturbances occur in 10% of cases of chronic nephritis, and the majority die within one year. The urine should always be examined to confirm the diagnosis.

The consideration of this disease is important because of its frequency and increasing frequency and because of the stratum of society in which it is so often found, namely, those leading a life of high tension, brain workers—captains of industry so called.

Over-feeding and indulgence in alcohol are recognized factors. Syphilis and heredity are considered as etiological factors. It is a primary recess and the dominant pathological condition is the overgrowth of the fibrous connective tissue, with later a shrinking of the kidney and puckering of the surface. Under the microscope the tissues show an irregular distribution and increase of connective tissue and loss of the parenchyma. Cardiac hypertrophy is constantly found in well-developed cases of this disease and both sides of the heart are involved. The cause of the hypertrophy is still an open question as to whether it is due to the interference with the circulation in the kidney raising the demands on the heart, or whether

it is due to something in the blood interfering with vaso-motor control. Men are more often afflicted than women. This condition may be regarded as only one of the fibroses and its etiology reconsidered identical with that producing fibrosis of liver, lungs, cords and other organs.

A. V. Meigs looks upon the disease as an ageing of the tissue. He says the increase of the morbid fibroid material is the essential pathological change incident to age; it is the disease of age. The number of years one has lived may be secondary to how he has lived and to what he has inherited from his ancestry. Man's transgressions of the laws of hygiene in respect to food, clothing and habitation must be considered as causation of this condition.

The metabolism which underlies these changes of the normal histological elements are not well known, but there must be some condition of blood produced which leads to destruction of the normal secreting structure of the kidney and an increase in the fibrous connective tissue.

"Tuberculosis of the Kidney," by H. J. Stoll, Wooster.

These papers were discussed by Drs. Stevenson, Zininger, Stern and Clark.

The concluding address was given by John H. Lowman, Cleveland, on "The Diagnosis and Treatment of Chronic Interstitial Nephritis."

A vote of thanks was tendered Dr. Lowman for his splendid address, and on motion he too was voted an honorary member of this Association.

The meeting was well attended for the month of August. The next meeting will be held in Akron on the second Tuesday (10th) of November.

The regular session of the Ashland County Medical Society was held Tuesday, September 1, with a good attendance. A committee was appointed to gather statistics and other matter relative to advisability of building a county tuberculosis hospital, and, if thought advisable, to confer with the proper officials in regard to its construction.

Jacob Fridline read a paper on "Pseudo-Typhoid Fever."

William H. Phillips, of Cleveland, gave an address on "Hay Fever."

Dr. Fridline raised the question of diagnosis on cases running a course of seven to ten days being due to the typhoid bacilli.

W. M. McClellan gave the history of nu-

merous cases of hay fever and the results of treatment both favorable and otherwise, also his deductions following the operative method.

W. M. McClellan gave the history of a case of fetal ascites, with premature delivery, the obliteration of the umbilical veins, and the large amount of fluid in the abdominal cavity, "two gallons" with cysts of both kidneys.

The regular meeting of the Stark County Medical Society was held in Canton, September 15. There were over fifty members in attendance. The announced program was carried out except the work expected of two members, who were announced, but were absent and not accounted for. The program, as carried out, is as follows:

Lectures.—H. C. Lyman, "Normal Mentation;" W. H. Becher, "Gastro-intestinal Diseases of Children;" H. E. Corl, "A Plea for the Family Physician."

Reports of Cases.—"Abscess of the thyroid and diabetes," J. E. Short; P. F. King, "Purulent Meningitis as a sequel to Appendicitis."

R. W. Dickey, of Massillon, and C. A. Ruffin, of Louisville, were elected to membership.

An amendment to the Constitution and Rules was proposed, providing for monthly meetings. This amendment was referred to the Executive Committee to be reported for action at the next regular meeting. The regular meetings have been held on the third Tuesday in January, March, May, July, September and November. A good many of the members think that the society could do more and better work for the profession in general and for the people by meeting once a month. The meetings might lose slightly in numbers in attendance, but with more frequent meetings, more would attend in the course of the year and more would have opportunity to contribute to the program. The Stark County Society is one of the largest and best in the State, in counties without large cities.

The President, J. C. Temple, and the Secretary, C. F. Zinninger, were in their places as usual, their faithfulness is, no doubt in part, an explanation of the success of the society. The Executive Committee is the balance-wheel of the organization, and some of its members might emulate the devotion of the President and Secretary with great benefit to the society.

The Summit County Medical Society met in regular session September 1, at Akron. The program consisted of a very interesting paper

on "Angina Pectoris, by Frank Winders, of Columbus.

The author briefly reviewed the more important theories advanced by early authorities. Attention was directed to Nothnagel's description of angina pectoris vasomotoria and to Brunton's discovery that nitrite of amyl by inhalation relieved anginous attacks by relieving vascular spasm.

The essayist emphasized the fact that angina pectoris was not a distinct disease but rather a group of symptoms which were caused by various pathological conditions.

The separation of angina into angina pectoris major and minor following Russell's classification was commended. The major types being those in which definite, anatomical lesions can be demonstrated, the minor those in which such lesions cannot be found.

The importance of the arterial abdominal reflex and its exaggeration, producing increased blood pressure was discussed and in the connection the relation of disturbance of the digestive system to the production of anginal attacks. The high blood pressure found during digestion in individuals who eat and drink to excess was accounted for by the exaggeration of the normal arterial abdominal reflex and by the irritative or toxic products of digestion present in the blood.

The continuation of these influences result in continued arterial contraction which in turn result in a compensatory thickening of arterial walls. Pal has demonstrated that these hypertrophied vessel walls are more than normally sensitive to impulses from vaso motor centers and are readily thrown into a state of hypertonic contraction, an additional element in increasing blood pressure. This increase in blood pressure eventually embarrasses the heart by overstraining its muscular walls. The heart is not only unable to perform its function in sending blood throughout the general arterial system, but does not furnish sufficient blood for its own nourishment thus increasing its embarrassment. Disease at the aortic valve and disease of the coronary artery, either a part of a general arterial disease, or confined to the coronary or some part of it, were mentioned as frequent causes of angina pectoris. The isolated disease of the coronary is similar to that found in the cerebral vessels and those of the kidney.

The differentiation of angina pectoris and hysterical angina was discussed and the importance of the blood pressure in this connec-

tion was emphasized. The essayist objected to the term pseudo angina and was of the opinion that it is safer to assume that cases are true angina unless they can be positively identified as of hysterical origin.

In the discussion of the treatment of the condition especial attention was given to that class of cases which seem to result from long continued exaggeration of the arterial abdominal reflex. It is in these cases that proper correction of disorders of the gastro intestinal tract, and regulation of habits as to food and drink, promises good results. The estimation of blood pressure is regarded as a very important element for consideration in connection with treatment.

The importance of the recognition of mild cases of angina pectoris and their treatment early in the course of the disease was fully emphasized.

SEVENTH DISTRICT

A meeting of the Jefferson County Medical Society was held on Tuesday, September 8, in the I. O. O. F. hall, North Fourth street, Steubenville, O., at 1:30 o'clock, with the following program: Call to order, by the President; reading minutes of last meeting, by the Secretary; clinical cases, by the Society; reports of clinical cases, by the Society; paper, W. O. Barkhurst.

A meeting of the Columbiana County Medical Society was held September 8. The following papers were read: M. J. Lichy, Cleveland, "Malnutrition;" Paul E. Barchhoff, "Erysipelas." J. M. George, of Salem, was admitted to membership.

EIGHTH DISTRICT

A meeting of the Licking County Medical Society was held September 1. The program was as follows: "Purulent Ophthalmia," J. R. Sook; "Hydrophobia-Rabies," C. F. Legge.

The essayist said in part: "The recent developments in medicine in conquering the terrible malady, rabies, as well as numerous other specific diseases stamps it as truly scientific and utterly refute the false claims and criticisms as frequently made by 'Christian Scientists' and others.

He compared the death rate with that of 25 years ago of 50 per cent. with that of the present, which is less than 1 per cent. the credit of which marvelous reduction being due to truly scientific work of the great Pasteur.

He discussed the etiology and symptomatol-

ogy, graphically describing the horrors of the closing scenes of the disease. He protested against the usual practice of killing the dog at once which has bitten a person, advising that rather it should be penned up to see whether it be really rabid. When killed its head should be sent to a pathologist for examination to determine positively the facts.

He considered the various methods of treatment by curare, calibarbean, ligature, cauterization, etc., but especially commended the Pasteur treatment for prophylaxis as well as cure.

NINTH DISTRICT

The regular meeting of the Gallia County Medical Society was held Wednesday, August 5, with Dr. Kineon in the chair. The names of Wellington Wilcox, of Vinton, and George L. Saunders, of Gallipolis, were presented for membership in this Society. On account of the small attendance, the routine business matters to come before the Society were postponed, and F. L. Watkins, of Columbus, State Registrar of the Bureau of Vital Statistics, was presented. His discussion covered the matter of the operation of vital statistic laws in the various important countries of the world. The details as to the operation of the laws as enacted in this state were reviewed. Among the paramount advantages of such statistics are: establishing age for school and for military purposes; for legal and medico-legal matters, and in case of child labor. The United States leads in accuracy and detail of statistics along industrial and agricultural lines. Compared, however, with the leading countries it is deplorably lax in its vital statistics. Twelve states have active Bureau of Vital Statistics; four more, Montana, South Dakota, Wisconsin and Ohio, have passed laws soon to be operative.

The remainder of program was postponed until next meeting.

The Gallia County Medical Society met in regular session in Gallipolis on September 2, William Miller presiding. The Secretary read a letter from Hugh F. Lorimer, of Chillicothe, Secretary of the Ohio League for Suppression of Fraudulent Advertising, urging the importance of the distribution for educational purposes of reprints of "The Great American Fraud," by Samuel Hopkins Adams. After considerable discussion the Secretary was authorized to purchase two hundred copies, the distribution to be made into the various communities of the county directly by the physicians who are members of the Society.

Jehu Eakin presented a case of peculiar and rare interest. A young, healthy lady gave history of a tumor arising in her left cheek about three weeks previously while eating. Largely disappeared only to reappear especially when eating candy. Observation revealed a spasmodic enlargement or congestion of the submaxillary gland, at which time the saliva was discharged excessively and in spurts. There was but little pain or tenderness and no evidences of inflammation. Probing the duct was directed.

Program rendered as follows, these papers being held over from preceding meeting: "The Physiologic Cardiac Mechanism," S. P. Fetter; "Some Observation upon Adams—Stokes Syndrome and Heart Block with report of cases," Jehu Eakin.

Discussion followed.

William Miller made report of three interesting clinical cases.

"Conjunctivitis" was the subject of a very interesting and instructive paper by Leonard McPherson at the regular meeting of the Pike County Medical Society. The paper was discussed by members present. A case of rectal impaction due to plum seeds was reported by L. E. Wills.

TENTH DISTRICT

At a meeting of the Columbus Academy of Medicine, September 7, the following program was carried out:

Arterio-Sclerosis, D. N. Kinsman.

Discussion: Drs. Deuschle, Upham, Waters, Harris, Harding, Rodgers and J. D. Dunham.

J. F. Baldwin reported the following cases:

(1) Tibia removed from a male patient, aged 23, on account of cystic degeneration of the bone. In addition to the cystic disease of the bone there had been cystic changes in the soft parts and a congenital deformity of the foot. The bone cyst was found filled with a straw-colored fluid, and the cysts in the soft parts filled with blood. Amputation had been made at such a point as to save the patient the use of the knee joint.

(2) A leg amputated because of intractable ulcer involving the lower portion, including the ankle. The ulceration extended around the limb except for about one inch of skin, had involved the fibula and had destroyed the soft parts so that the tendo achilles and the tendon of the peroneus tertius stood out as columns of tissue.

(3) An enormous ovarian fibroid.

(4) A uterus containing a number of small fibroids and a large fibroid in which had been an unusually large cyst filled with straw-colored fluid.

(5) A uterus with a large number of fibroids attached; one of these fibroids, about as large as a fetal head, had developed under the peritoneum extending forward between the bladder and vagina. Its removal had been exceedingly difficult because of its relationship to the ureters and large blood vessels. The hemorrhage had been terrific, requiring packing of the cavity, with drainage through an opening made in the vaginal wall.

(6) A very similar mass of fibroids, but of ordinary course of development.

An interesting feature of cases 5 and 6 was that the patients were sisters and had been operated upon the same day, and that a third sister was affected similarly and would require an operation soon.

(7) A calculus and kidney removed from a patient in whom infection had followed childbirth 21 years before. She had passed a number of calculi, but one had lodged and developed to such a size that it could not be removed through the urethra. The kidney was destroyed by abscesses and in the lower portion was a putty-like mass, about the size of a nutted walnut, which had simulated a stone by X-ray examination.

The cases reported were all convalescent.

The doctor also reported two cases as emphasizing the importance of thorough examination during abdominal operations.

Case 1. A boy, ten years of age, presenting the usual symptoms of appendicitis of twenty-four hours' duration. Patient had a congenital right inguinal hernia, which, however, ordinarily remained reduced. The usual McBurney incision was made which gave exit to more serous fluid than is ordinarily found in these cases. This led to the suspicion of more trouble than appendicitis and the internal ring was examined but no hernia was present. The appendix was found unusually large, deeply congested, and presenting the ordinary appearances of acute inflammation. It was removed in the usual way. The inflammation, however, did not seem to the operator sufficient to account for the amount of fluid which had been present, and he therefore had persisted in searching through the incision for something more. His search was rewarded by the finding of a "weinerwurst" at the bottom

of the pelvis which, on being brought up was found to be an intussusception, which was reduced with difficulty. The intussusception was in the lower portion of the ileum and had been caused by a Meckel's diverticulum which in some way had become inverted. The inversion was reduced, the diverticulum cut away, and the incision closed without drainage. Patient entirely convalescent.

Case 2. Male, aged 4, presenting typical history of chronic ulcer of the duodenum, with partial obstruction. He also gave a history of such alcoholic habits of many years' standing as would naturally lead to disturbance of stomach and liver. The case had been carefully studied by Dudley Dunham, and the main lesion finally located in the duodenum. No history or evidence of any trouble with the appendix. At the operation ulcer of duodenum was found. It was surrounded by a large amount of exudate which, owing to the age of the patient, was very suggestive of malignancy. The pylorus, which was intimately involved, was thoroughly removed together with the upper portion of the duodenum, and adherent pancreatic tissue. The operation was completed by a posterior operative recovery for about a week, but then developed symptoms of a low grade of general peritonitis, attended with persistent vomiting, but without localizing symptoms. It was supposed that there was some infection from the operation, and that a part of the symptoms at least were due to the beginning cirrhosis of the liver. He died on the sixteenth day.

Autopsy showed the field of operation in perfect condition, but a gangrenous and ruptured appendix which had been the cause of the peritonitis and of the death. At the time of the operation, owing to the gravity of the operation itself, and the low condition of the patient preceding it, with entire absence of history of any trouble about the appendix, that organ had not been examined. Had it been examined and removed recovery instead of a death would have been recorded.

PROGRAM ANNOUNCEMENT OF EYE, EAR, NOSE AND THROAT SECTION.

The Secretary would be pleased to receive applications for places on the program of the Eye, Ear, Nose and Throat Section for the Cincinnati meeting next May.

The session of this section will probably last three forenoons instead of two whole days, as formerly, to give those who desire to, a chance to attend the general section meetings.

The program will probably be limited to eight fifteen-minute Eye papers and eight fifteen-minute Ear, Nose and Throat papers.

The principle address will be delivered by a prominent oculist of Chicago on some Eye subject.

In applying for place on the program, please give preference of one or more titles and a word or two in regard to your treatment of same, which will facilitate the formation of a well-balanced program.

Communicate as early as possible with Dr. Wade Thrasher, of Cincinnati, Secretary and Treasurer Eye, Ear, Nose and Throat Section.

NEWS NOTES

William S. Keller, Cincinnati, has returned after a year in Europe.

William Osler, Oxford University, has been made lord rector of Edinburgh University.

William C. Kendig, Cincinnati, has been appointed examining physician for lunacy cases.

C. D. McCoy and wife sailed for Honolulu, October 6. They expect to return sometime in November.

John H. Rodgers has resigned as a member of the Springfield Board of Health, and has been succeeded by Ira E. Seward.

R. C. Longfellow, of the Toledo Clinical Laboratory, has been elected Professor of Biology and Laboratory Pathology in St. John's College, Toledo, O.

A Good Thing.—A traveling exposition of quack advertisements and methods is being organized at Upsala, Sweden, to send throughout the country.

W. L. Dick, Columbus, was elected to succeed H. M. Platter as City Medical Inspector. Dr. Platter was recently appointed State Inspector of maternities and baby farms.

The Academy of Sciences at Vienna has now in its possession a few grains of radium salts obtained from about 25,000 pounds of the ore from the Joachimsthal uranium mines.

The sixty-second anniversary of Ether Day will be celebrated at the Massachusetts General Hospital, October 16. William H. Welch, of Baltimore, will deliver the annual address.

William A. White, Washington, D. C., and Smith Ely Jelliffe, New York City, have been appointed to represent the United States at the Third International Conference for the Care of the Insane, to be held in Vienna, October 7 to 11.

Of the thirty-five physicians at present in attendance at the Chicago Polyclinic, three are from Ohio.

Robert Leach, of Mt. Sterling, will be there some months doing special work in Surgery and Surgical Research with Prof. Paul Grannerud.

Burton A. Miller, of New Riegel, is doing general work.

A. A. Perrin, of Chillicothe, is taking special work in Diseases of Children.

Apropos of the C. C. Marsh case referred to in the last Journal, the State Board of Medical Examination and Registration is grateful for one thing, and that is that it developed the technical weakness of the law so as to enable it to be properly fortified before any great damage was wrought.

It will be remembered that in the last issue of the Journal notice was given about an injunction having been secured against H. L. Murchison of Sandusky. The affidavit upon which the suit was based was signed by Dr. C. H. Merz, who acted in behalf of the Erie County Medical Society, having been authorized by the Society to proceed against the defendant. Since judgment was secured, literature emanating from the office of the Independent Doctors' Association has been freely circulated in Sandusky, tending to discredit Dr. Merz. While this has no doubt caused some embarrassment to Dr. Merz, the profession are greatly indebted to him for his stand in the matter, which will eventually mean much to the enforcement of the medical practice act in this and other states.

THE TOLEDO MEDICAL COLLEGE.

During the summer vacation the building has been put in repair in every laboratory, and much new apparatus has been added to the laboratories of Bacteriology, Pathology and Physiology. A new sanitary animal house for dogs, rabbits, guinea pigs and frogs has been built. More cases are being added to the reading room. The course of study has been fully graded and lengthened to thirty-four weeks per year, and new laboratory courses in the embryology of the chick and physiological chemistry have been added to the curriculum.

CONSULTANT STAFF AT PENITENTIARY.

A. S. Helmick, Physician in Chief of the Penitentiary Hospital, has appointed the following staff of consultant physicians who will render their services when called upon: Internal Medicine, J. H. J. Upham, M. D., L. M. Lisle, M. D.; Surgery, Fred Fletcher, M. D.; Nervous and Mental Diseases, W. D. Deuschle, M. D.; Diseases of the Skin, Charles J. Shepard, M. D.; Diseases of the Rectum, Wells Teachnor,

M. D.; Diseases of the Stomach, John Dudley Dunham, M. D.; Genito-Urinary Disease, Starling Wilcox, M. D.; Pathologist, James McI. Phillips, of the Ohio State University; H. R. Garret is day physician and D. W. Collison night physician.

DEATHS

Eli Conn, University of Wooster, 1876, died at South Akron, August 8, from apoplexy, aged 70.

Harvey D. Danford, Medical College of Ohio, 1870, died at his home in Trimble, August 21, after a prolonged illness, aged 63.

Joseph Hibble, Jefferson Medical College, 1855, a practitioner of Enon, died at his home after a long illness, August 10, aged 85.

Dr. Zophar F. Guerin, father of Dr. Lovett Guerin, and probably the oldest physician in Columbus, died suddenly at about 1:30 o'clock, Tuesday afternoon, September 15, of heart trouble. He was found dead sitting in a chair. One of his relatives in the house went into the room and spoke to him, and when he did not answer, she investigated and found him dead. He had been slightly ill Monday, but not seriously, and his death was entirely unexpected. Dr. Guerin had practiced in Columbus for over sixty years, and had he lived until next November, would have been 88 years of age.

Henry A. Tobey, Miami College, 1875, died suddenly at his summer camp at Huntsville, Ont., August 18, from cardiac disease, aged 56. Dr. Tobey was assistant physician at the Columbus State Hospital from 1877 to 1880; Superintendent of the Dayton State Hospital from 1880 to 1884, and assumed charge of the Toledo State Hospital in 1886. He was the originator of the segregation plan of treating patients in state hospitals.

WHEREAS, It has pleased Almighty God to remove from our midst our fellow practitioner, R. R. Smith; and

WHEREAS, We recognize his honesty, sobriety and moral integrity; therefore be it

Resolved, That we, the members of the Logan County Medical Society, do hereby tender our sympathy to the loved ones left behind; and be it

Resolved, That we strive to emulate his good qualities as a citizen and physician. Be it

Resolved, That these resolutions be spread upon our minutes, and a copy of the same sent to his family, and also the STATE MEDICAL JOURNAL.

W. W. HAMER,
R. D. CLIPPINGER,
P. D. COVINGTON,
Committee.

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ORIGINAL ARTICLES

THE RELATIVE INDICATIONS FOR CESAREAN SECTION.

BY CHARLES N. SMITH, M. D.,
Gynecologist to St. Vincent's Hospital,
Toledo, Ohio.

[Read before the Ohio State Medical Association, Columbus, Ohio, May 6, 1908.]

All procedures in medicine and surgery must be subjected to the test of time and must stand or fall by their results when judged in comparison with the results of measures with which they compete or which they aim to displace.

The adoption of surgical asepsis has made possible the frequent and successful performance of many major operations which before its exploitation were inadvisable because of the prohibitive mortality attending their performance.

The great stimulus given to surgery, and especially to pelvic and abdominal surgery, by the adoption of the aseptic technique has given to surgeons a vastly improved mechanical technique and dexterity. This is but the natural result of the enormous experience and constantly increasing familiarity with pelvic and abdominal conditions, before impossible within the limits of safety.

A question of the greatest importance, both to the profession and to society, arises as to whether the aseptic technique and its resulting mechanical dexterity has given to obstetric surgery its full measure of benefit. Has it sufficiently advanced the performance of meritorious operations which, while technically more difficult, are attended by a lower mortality rate and by a lessened subsequent morbidity for both mother and child than those procedures more commonly practiced because technically more simple?

The results of the various obstetric operations when compared the one with the other must not only answer the question, but also serve as a guide for the obstetric surgeon in the selection of the operation most promising, not only for the life of mother and child, but also for the subsequent comfort and health of both.

An operation must be judged not so much by its immediate as by its ultimate or end results, and in the consideration of these end results in obstetric surgery due and proper concern must be given to the subsequent morbidity of the two individuals, the while recognizing the equality of rights possessed by them.

Cesarean section has, until in quite recent years, been an operation of last resort, performed largely upon patients exhausted by long and severe labor or after failure in the tentative employment of other measures. Called upon thus late in labor, Cesarean section has been forced to bear the brunt of many maternal deaths not rightfully attributable to the operation itself, but, rather, to the preceeding unsuccessful tentative measures, with their attendant exhaustion, mutilation and infection. Not until Cesarean section was performed more and more frequently as an operation of first resort, an operation of election at the very inception of or prior to labor, before maternal exhaustion and before the possibility of infection by repeated examinations and instrumental manipulations, was the operation placed in its present well merited position, unclouded by the mortality of extraneous conditions and accorded its value as one of the most safe, most beneficent and most humanitarian operations in present day surgery.

The worth of any surgical procedure must be based upon dependable statistics, collected in a painstaking manner by reliable and unbiased observers, extending over a period of years and embracing many operations performed by men thoroughly equipped by the lessons of experience for its performance.

The Sloane Maternity is a highly reputable and well-known institution, attended by obstetricians whose reputations for knowledge, judgment and skill are not only local, but also national in character. The rational induction seems fair that the results obtained in that institution form a reliable index of the results of modern institutional obstetric surgery.

During a period of something over sixteen

years, extending from January, 1888, to October, 1904, there were attended in the Sloane Maternity, New York, 15,611 cases of labor. (Voorhees, *Amer. Jour. Obstetrics*, August, 1905, p. 161.) Of the various obstetric operations, induction of labor was resorted to 380 times; 229 patients were delivered by high forceps, 298 by medium forceps and 464 by version, while craniotomy was performed in 126 cases. Certainly these specified operations were performed a sufficient number of times to warrant the employment of the results obtained, as to both mother and child, as a basis for comparison with the results of Cesarean section.

The fetal mortality in the cases of induced labor amounted in all the cases to 39 per cent.; in contracted pelvis alone to 21 per cent. Following high forceps operations the fetal mortality was in the total 33 per cent., which was increased to 43.2 per cent. in contracted pelvis; while in the application of the medium forceps, so frequently resorted to in general practice and so universally looked upon as a safe procedure, 14 per cent. of the entire number of children and 16 per cent. in the contracted pelvis cases lost their lives. Version was attended by a general fetal mortality of 40 per cent., which was increased in contracted pelvis to 49.5 per cent., while craniotomy, of course, was associated with a 100 per cent. mortality rate to the children.

Can these statistics, appalling as they must be, tend in the least to the impression that the unborn child is given a fair chance, is given the square deal, is given an equal chance with its mother, as is demanded, rightfully or not, by certain religious tenets, as society has the right to demand from obstetric surgery? This living and opportune question, placed fairly before the medical profession, must be met, and that in no equivocal way. Church, society and our own professional and humanitarian instincts demand that a stop must be placed upon this enormous sacrifice of child life. Other methods, rather than those in vogue, must be invoked in the interest of the unborn children.

Compared with these so frequently practiced obstetric operations, Cesarean section is essentially better calculated to conserve the interests of the child. Performed in from forty to 120 seconds insofar as the delivery of the child is concerned, this procedure assures the delivery of a living child in every case in which it was alive at the beginning of the operation. Fortunately, too, it assures more to the child. It assures freedom from the compression incident to a contracted birth canal, from the dangerous pressure of high or even medium forceps, from the dan-

gers of arrested circulation in the cord and compression of the after-coming head of podalic version, and from the dangers incident to the slow progress of an induced labor. In short, it obviates all the dangers of the child inherent in and incident to the more common obstetric operations and affords to it the best possible chance for life.

Many in the profession, however, basing their argument upon the frequently quoted dictum of Simpson that the safety of the mother must be the supreme law and emphasizing the fact that at least one-fourth of all children perish within the first four years of life, hold that the life of the mother, from an economic civic standpoint, far overbalances in value and importance the life of her unborn child.

The advocates of Cesarean section can accept this dictum and its implied corollary and yet insist and show satisfactory grounds for insistence that this major procedure performed by experienced men at the proper time as an operation of election, offers not only to the child, but also to the mother as well, a lower mortality rate and a much lessened subsequent morbidity than any other obstetric operation.

Reynolds (*Jour. Amer. Med. Asso.*, October 19, 1907), in a paper before the American Medical Association in June, 1907, presented the collected statistics of 289 Cesarean sections performed by twenty different operators, every one of whom had performed the operation five or more times. Evidently these were men skilled in abdominal and obstetrical work, else they would not have had five or more Cesarean sections to their individual credit. Of the 289 sections, all done for pelvic contractions, forty-nine were performed late in labor after failure of the expulsive powers to drive the head through the contracted pelvic brim and were attended by a maternal mortality of 12 per cent. These are the operations too frequently suggested by the inexperienced and now so generally declined by the experienced.

In the cases operated early in labor, after a moderate test, but before maternal exhaustion, 158 in number, the mortality was reduced to 3.8 per cent. Of the eighty-two remaining—and here lies the life of the argument—operated before labor or with the onset of the first pains, only one mother lost her life, and that by a technical error, a mortality of but 1.2 per cent.

E. S. Gushee, in the December (1907) *Bulletin of the Lying In Hospital of the City of New York*, in a report of 100 Cesarean sections performed by seven operators, each having had an experience of five or more cases, reports twenty-seven cases operated after exhaustion, with a

maternal mortality of 14 per cent. (four cases); fifty-nine operated after a moderate test, but before exhaustion, with 1.6 per cent. maternal mortality (one case), and fourteen operated just before or at the onset of labor, with absolutely *no mortality* to either mother or child.

Cesarean section, then, performed, as it can be and should be, as a primary or elective operation, for contracted pelvis, is, as demonstrated by these eighty-two cases of Reynolds and the fourteen of Gushee, attended by a lower maternal mortality than attended the more common obstetric operations as performed at Sloane Maternity, as will be shown.

Returning to the statistics from the Sloane Maternity and inquiring only as to the maternal mortality, the advocates of Cesarean section find abundant cause for contentment in the contention that the Cesarean operation affords, in comparison with the generally practiced obstetric operations, greater safety to the mother as well as, as has been shown, to the child.

Induction of labor was attended by a maternal mortality of 3 per cent., high forceps by 1.8 per cent., medium forceps by 1.3 per cent., version by 2.1 per cent. and craniotomy by 5.6 per cent.

Comparing these results to the mother with those obtained from the elective Cesarean section, it is strikingly evident that all the common obstetric procedures, so generally accepted as bearing the stamp of safety and so frequently and so unhesitatingly employed by the profession at large, even including the application of the medium forceps, are attended by a higher death rate than the major procedure.

It is granted that these statistics of the Cesarean operation do not show the mortality of the operation when performed by the inexperienced. Neither, on the other hand, do they show the mortality of the commoner obstetric operations in like incompetent hands. Both tables of statistics indicate the results obtained in institutional practice. Their use for purposes of comparison seems eminently fair. The obvious and impressive lessons, standing out so boldly that every obstetrical wayfarer must heed their teachings, are that Cesarean section, proven a safer procedure for both mother and child than the commonly employed obstetric operations, must, in the interest not of one, but of both, be more frequently resorted to in cases of difficult labor, and that, in order that the greatest benefit accruing to both mother and child may be obtained, the operation must be performed prior to or at the onset of labor. This last requires more thorough study and supervision of pregnant women when approaching labor than has been generally accorded

them, in order that conclusions as to the advisability of the operation may in as large a proportion of the cases as possible be determined without subjecting the patient to the test in labor, with its associated higher mortality.

The day is approaching, and that rapidly, when the elective Cesarean section will come into its own, when the laity as well as the profession will appreciate its life saving powers and will demand its more frequent employment.

A comparative study from a surgical standpoint of the condition of a woman delivered by Cesarean section and that which may and frequently does prevail in one delivered by induced labor or by artificial dilatation and version or by high or medium forceps, is both interesting and valuable.

The temperature charts of eight of my cases of Cesarean section not infected prior to operation and operated upon at the inception of labor show that in none did the temperature rise above 100°, and in one only did it go above 99°. The recoveries, as shown by these charts, were as smooth and uneventful as occur in the average cases of uncomplicated labor. These patients, as a rule, were out of bed on the fourteenth day and able to leave the hospital between the seventeenth and twentieth days, which is as short a puerperal period as is usual in non-surgical cases.

Septic infection would be considered as the principal danger threatening the subjects of elective Cesarean section, and yet in the above mentioned eighty-two cases infection did not occur in a single instance. In those operated upon after the test in labor sepsis becomes a more important factor, because of the exposure of the patient through the frequent examinations to which she may be subjected. Late in labor, after repeated examinations, possibly made by several men, and through manual or instrumental manipulations, or both, and after the increased susceptibility to infection from the exhaustion of labor and from hemorrhage, the importance of septic infection as an active cause of mortality or morbidity becomes more pronounced. On the other hand, puerperal infection following the academic operations and even the natural uncomplicated deliveries, is by no means a rare occurrence.

From the standpoint of trauma to the maternal soft parts, abdominal section bears most favorable comparison with the more common methods of delivery. Of the two incisions incident to Cesarean section, the abdominal and the uterine, both are sharp and clean cut, with no bruising of tissue, with its resultant lowered vitality and possible necrosis, but are in healthy and uninjured structures, possessing every qualification for

prompt and complete repair. The uterine incision, originally some five inches in length, has, before the completion of the operation, owing to the contractions of the uterus, been reduced to three inches or less. This shortening of the incision continues as uterine involution progresses. To insure the safety of the patient and to secure perfect anatomic restoration of the uterine wall, the incision must be closed by two series—one deep and the other superficial—of interrupted sutures. The employment of the continuous suture is faulty, in that as the uterus contracts and the incision shortens this form of suture no longer remains taut and consequently fails to retain the incised walls in close apposition. The more or less pronounced gaping of the incision thus allowed favors peritoneal infection from the uterine cavity, hemorrhage from the uterine sinuses and rupture of the uterus in a subsequent pregnancy from faulty union.

As to the abdominal incision, little need be said save that it, too, shortens perceptibly as the involution and retraction of the abdominal walls proceed, and that closure by the layer suture practically insures unimpaired strength to these walls.

In marked contrast with the condition of the maternal soft parts following Cesarean section is that which prevails after resort to accouchement force and version. J. Whitridge Williams (Trans. Amer. Gynecological Society, 1906), in an analysis of 5000 labors in the Johns Hopkins Hospital, reports eighty-three cases in which Harris' method of manual dilatation was employed. In thirty-three cases of eclampsia there were no lacerations of the cervix in eleven, slight lacerations in three and deep lacerations in nineteen, and of these latter six were attended by so severe hemorrhage as to require immediate suture of the cervix. In seven cases of pre-eclamptic toxemia the cervix was uninjured in two, slightly torn in two, deeply torn in three, of which two required immediate repair because of hemorrhage. Of twelve cases of placenta previa there were no tears in five, slight tear in one, deep tears in six, or 50 per cent. of the whole, five of them demanding immediate repair. In thirty-one miscellaneous cases, with impending dangers to either mother or child, no injury to the cervix occurred in twenty, slight lacerations in six, deep lacerations in five, with but one requiring suture.

Deep lacerations of the cervix, then, occurred in thirty-three, or 39.79 per cent., of the eighty-three cases, while of this number fourteen, or 17 per cent., were so severely lacerated and attended by such profuse hemorrhage as to require immediate suture. Furthermore, and of great im-

portance in this argument, there were four maternal deaths, a mortality of 4.82 per cent., "clearly due to the operation," as Williams says, and of these four deaths three were caused by incomplete rupture of the uterus.

It is unquestionably true that in certain cases manual dilatation of the cervix followed by version is preferable to Cesarean section, because safer for both mother and child. Given a cervical canal already obliterated and an external os somewhat dilated or dilatable, or one in which the whole cervix, while not effaced, is greatly softened and easily dilatable, manual dilatation and version should be the operation of choice, except in a large proportion of the cases of placenta previa. On the other hand, if the internal os is not obliterated, if the entire cervix is undilated and rigid, especially in primiparæ, and more especially in those advanced in years, Cesarean section should be elected.

Manual dilatation in placenta previa is so frequently attended by deep, bleeding lacerations or even by incomplete rupture of the uterus, owing to the thinning and softening of the uterine wall at the site of placental implantation, that it must be denied consideration except in those instances presenting a fortuitous combination of conditions favorable to its employment.

If serious hemorrhage from placenta previa occurs during labor, with the cervix obliterated and the external os partially dilated or soft and dilatable, manual dilatation with version is beyond doubt the safest procedure for both mother and child. With hemorrhage occurring early in labor, with little or no dilatation of a rigid cervix, manual dilatation, preceded, as it frequently must be, by partial instrumental dilatation, is attended by a large element of danger. In certain cases with sufficient cervical dilatation, the Champetier de Ribes bag, or one of its substitutes, may be introduced, and dilatation completed by distension of and traction upon the bag. The employment of the bag in placenta previa is, however, attended by one disadvantage and by one danger. In the majority of instances it is too slow, and it occasionally increases the hemorrhage.

In determining the procedure best adapted to these border-line cases, the surroundings and physical condition of the patient, the experience and ability of the operator, the viability of the child and its rights as well as those of the mother, the dangers threatening both and the dangers inherent in the various operations under consideration, must be judged by an impartial and discerning mind. Cesarean section, with its rapid delivery in the interest of the child and its freedom from lacerations and rupture and hem-

orrhage in the interest of the mother, occasionally may be elected to the advantage of both. In those cases presenting dangerous hemorrhage before the onset of labor, with the cervix unprepared, undilated and rigid, Cesarean section probably find its broadest field for usefulness in placenta previa.

While pregnancy, labor and the puerperal period are beset by many dangers, few, if any, of them are attended by as high a mortality rate as is eclampsia. Possessing a maternal mortality of from 20 per cent. to 30 per cent. and a fetal mortality of from 30 per cent. to 50 per cent., a mortality rate which rapidly rises with each succeeding convulsion, eclampsia necessitates prompt, vigorous and thorough measures for its control and for the rescue of the two lives which it threatens.

The medicinal treatment of eclampsia must be considered as unsatisfactory and the deaths occurring as being caused by a mixture of toxemia, chloroform, chloral, morphine and veratrum.

Emptying the uterus is immediately or very soon thereafter followed by cessation of convulsions in nearly all cases. Zweifel reports arrest of convulsions in 66 per cent., Olshausen in 85 per cent. and Durhssen in 93.75 per cent. of eclamptic seizures. Zweifel found the expectant treatment attended by a maternal mortality rate of 28.5 per cent., while active interference in emptying the uterus was followed by but 11.25 per cent. mortality. If the uterus must be emptied of its contents in order that the convulsions may cease, and if each succeeding convulsion increases the danger of death to both mother and child, then that procedure which empties the uterus in the shortest time must be employed, provided that the dangers inherent thereto are not greater than those attendant upon competing methods.

Induced labor is so slow in its action that it cannot be given consideration in eclampsia with convulsions. Manual dilatation and version is undoubtedly indicated in the majority of cases and in practically all of those in which eclampsia supervenes upon labor.

The observations and researches of Loehlein, Schauta, Braun, Olshausen, Newell, Geuer, Schreiber and Durhssen show that 80.95 per cent. of eclamptic patients are primiparæ and that a large percentage of them are either under the age of twenty or over thirty. It is in them with the firm-walled, narrow vagina undistended by previous deliveries that difficulty and delay so frequently attend manual dilatation and version. If convulsions occur prior to the onset of labor, with the cervix undilated and firm, further difficulty and delay beset this procedure. It is in this

particular class of cases, attended by the highest mortality, that Cesarean section, with its speedy delivery, offers a greater promise to both mother and child than any other obstetric operation.

THE ROENTGEN EXAMINATION OF THE OESOPHAGUS.

SIDNEY LANGE, M. D.,

Radiographer to the Cincinnati Hospital.

[Read before Ohio State Medical Association.]

The application of the Roentgen ray to the diagnosis of œsophageal disorders may, at first hand appear to be a superfluous refinement. The intricacy of modern diagnosis, necessitating as it does the use of the various "scopes" and the many laboratory tests, argues against multiplying diagnostic methods.

We may say offhand, that œsophageal disorder means practically one thing, namely, hindrance to the passage of food. And in the main there is but one symptom of disease of the œsophagus, namely, disturbance of deglutition. Of the objective signs there is likewise but one, namely, the resistance encountered in passing a stomach tube or bougie. But Rosenheim says that a disproportion between the natural power of deglutition and the results of probing may be found in all the various affections of the œsophagus. The patient may complain of increasing difficulty in deglutition so that even fluids fail to pass, and yet it may be possible to pass an œsophageal bougie into the stomach readily. This peculiar circumstance is met with chiefly in compression of the œsophagus from without and in neuroses, but occasionally it will be found in flat carcinoma which does not infiltrate the œsophagus in annular form, but disturbs deglutition only in a reflex manner. And in any organic stricture there may be an early stage in which the tube encounters no resistance, but in which œsophageal peristalsis will be interfered with either by spasm or paralysis of the musculature secondary to the lesion. Thus the ultimate cause of disturbance of deglutition may be the result of mechanical or nervous factors or a combination of both.

The examination of œsophageal obstruction has for its object the determination of the *existence* of an obstruction (either mechanical or nervous) to the passage of food. But since both organic and functional stricture may be of such a nature as to either permit of the ready passage of œsophageal bougies or so tight as to absolutely prevent their passage, the results of such instrumentation are sometimes not conclusive.

Having determined the presence of an obstruction, it becomes necessary to discover whether the stricture is functional or organic. Rosenheim says the diagnosis of spasm of the œsophagus is rarely easy. Such points as the sudden appearance of the difficulty in deglutition, the differences in degree of permeability, variations in the seat of the constriction from time to time and the presence of other hysterical stigmata speak for spasm of the œsophagus. The resistance of the spasm to the tube may be very slight or the spasm may be so tight as to prevent its passage. The spasm may be brought on by eating coarse food or by the passage of the stomach tube and may relax after rapid efforts of swallowing.

In organic stricture the resistance offered to the tube is more permanent in its degree and situation and there is usually a history or associated symptoms that speak for the possibility of the occurrence of such a stricture and its nature. In cancer, which is the most common organic obstruction, we consider the age of the patient, but cancer may occur early in youth, we look for the cachexia, but it is well known that patients may maintain their nutrition for a considerable time in cancer of the œsophagus, and on the other hand a neurotic stricture may be so persistent as to cause severe inanition.

A careful chest examination may reveal a mediastinal tumor which is exerting pressure upon the œsophagus from without, but a mediastinal tumor may be of such size and position as to escape recognition by physical examination.

While organic strictures are usually constant and permanent, it should not be forgotten that there may be a combination of spasmodic and organic stricture, and furthermore organic strictures are subject to inflammatory exacerbations so that the symptoms in any given case may not be distinctive of either organic or spasmodic stricture, but may have features in common with both. For the above reason the observation that in organic stricture semi-solids and liquids will pass while in spasmodic stricture nothing will pass, may fail to hold good.

The above points of possible error are enumerated simply to suggest that in certain difficult cases of œsophageal obstruction there is room for additional methods of examination. Rosenheim advances the use of the œsophagoscope to clear up these difficulties. Being able to look directly at the seat of obstruction he differentiates organic and spasmodic strictures, by the picture thus presented, spasmodic strictures presenting simply puckered folds of mucous membrane, organic varieties presenting tumor masses, ulcers, cicatrices, etc.

By the X-ray method of examining the œsophagus the act of deglutition itself can be studied. Its ease and safety of execution and the additional information which it supplies make it preferable in *some* ways to the older clinical methods, not, however, displacing the older methods, but rather aiding and reinforcing them.

In selected cases, however, the use of the Roentgen method is imperative. In very neurotic or very feeble patients œsophageal instrumentation often cannot be carried out, while in valvular heart disease the passage of œsophageal bougies is distinctly dangerous. In any case the possibility of an undiscovered aneurysm or other mediastinal tumor lends an element of risk to such procedures.

1. We have in the X-ray a means (both ocular and graphic) of determining the function, position and size of the œsophagus from the pharynx to the diaphragm, and since but one-half inch of the tube lays below the phrenic hiatus, any obstruction at or below the diaphragm will be manifest above it. Therefore, the entire tube can be studied. The Roentgen method has to do only with the lumen of the œsophagus and takes no account of changes in its walls, per se, for a cancer or gumma of the œsophagus rarely reaches a size large enough to be rendered visible by the X-ray.

2. The rays afford a *safe* means of examining the œsophagus. The passage of tubes, bougies, œsophagoscopes, etc., being dispensed with. The materials used for the X-ray examination being gelatine or rice powder capsules and bismuth subnitrate, cannot possibly do harm.

3. Basing the conclusion upon a limited experience, it would seem that diminution in the size of the lumen of the œsophagus can be detected earlier by this method than by any other. If there is any value at all in the recognition of œsophageal obstructions it lays in their early recognition. For if the obstruction be cancerous (and more than 75 per cent. are), the prognosis can be laid before the patient or his relatives early in the course of the disease and preparations made for proper feeding, etc., in order to prolong life. If the obstruction is cicatricial or gummatous, its early recognition becomes doubly important so that the proper medication or surgical procedures may be adopted in time.

The ordinary stomach tube meets with resistance only when there is considerable reduction in the lumen of the œsophagus. The œsophagus is elastic and permits of considerable stretching so that a stomach tube or small bougie may pass a partial obstruction without resistance. It is only by the use of the *larger* sounds that a *slight* narrowing of the œsophageal lumen may be detected, and the use of these large instruments is not only

very disagreeable to the patient, to say the least, but also dangerous. By giving the patient a capsule (the size of a quarter) filled with bismuth subnitrate and watching its passage through the œsophagus, any slight decrease in the size of the lumen will be evidenced by the temporary stoppage of the capsule at the point of constriction.

The retardation or stoppage of such a bismuth capsule depends not entirely upon the actual narrowing of the lumen of the tube, for gravity plays little part in the function of the œsophagus. The movement of a bolus through the œsophagus depends primarily upon the progressive peristaltic muscular wave behind the bolus. The bolus may be retarded not only by a constricted lumen but by absent or deficient peristalsis as well.

In infiltrating lesions, such as cancer or gumma, there must be an early stage of infiltration of the œsophageal wall before the lumen is appreciably diminished, and this infiltration will in all probability either diminish the vigor of, or stop altogether the peristaltic wave at this point and the bolus will pause here for a longer or shorter period of time, and thus our bismuth capsule would register the presence of such a paretic or paralytic section of the œsophagus by its stoppage at that section. An œsophageal bougie passed at this stage may meet with no appreciable resistance.

Another favorable feature of this method is the fact that it is *agreeable* to the patient. A patient who fights the stomach tube will readily swallow a bismuth capsule or eat a few teaspoonfuls of bismuth mush.

The X-ray also affords information regarding the presence of mediastinal tumors which may be pressing upon the œsophagus, and the examination of the œsophagus should always include an examination of the chest for such tumors. Aside from the dangers of using œsophageal sounds and the œsophagoscope in cases of mediastinal tumors, the latter instrument would not necessarily clear up the condition in any given case, for the mucosa at the site of compression may be either healthy or it may be ulcerated from pressure of tumor.

The normal œsophagus is not visible to the X-ray, nor is an ordinary bolus of food visible. In order to examine the œsophagus, something must be introduced to cast a shadow. Bismuth subnitrate answers the purpose admirably, being very opaque to the ray and inert so far as any effect upon the patient is concerned.

But because of the deep position of the œsophagus in the chest it becomes necessary to place the patient in what the Germans have called the "Fechter-stellung," the oblique position assumed

in fencing. In this position the rays traverse the chest obliquely from left posterior to right anterior, or vice versa. A clear space between the heart and the spine thus comes into view. It represents the retro-cardial space or posterior mediastinum and the path of the œsophagus. For safe and accurate X-ray work on this kind special apparatus is necessary. For the protection of the operator the X-ray tube should be enclosed in a lead-lined box or lead-glass shield, while the fluorescent screens should be covered with lead glass. For obtaining a normal ray and controlling the axis of the ray, the tube and fluorescent screen should maintain parallel relations with each other by means of an orthodiagraphic apparatus after the principle of Moritz.

The examination is carried out as follows: The patient is placed in proper position in an orthodiagraph apparatus, the room darkened completely and the ray turned on. The path of the œsophagus is examined to ascertain that it is not obstructed by any tumor mass. Now a five-grain gelatine capsule filled with bismuth subnitrate is placed in the patient's mouth, and when ready the patient is instructed to swallow. The capsule at once lands in the hypopharynx just behind the cricoid cartilage. It may simply pause here for an instant or it may remain several seconds before entering the mouth of the œsophagus. The capsule then enters the œsophagus and proceeds, rapidly disappearing through the diaphragm in two to four seconds. In some cases, particularly in patients past middle age, the capsule halts under the upper part of the sternum, where the arch of the aorta and the bifurcation of the trachea overlie the œsophagus. This point corresponds in situation with Treves' second point of normal narrowing of the œsophagus, and is due apparently to the slight pressure of a thickened or dilated aortic arch. In some cases it may be necessary to give the patient a swallow of water to carry the capsule past this point. It has been my experience that partial œsophageal obstruction is a rather constant accompaniment of aortic aneurysm as evidenced by the stoppage of a bismuth bolus at the aortic crossing, although in such cases the patient as a rule will not complain of dysphagia. And this fact has suggested the possibility of the existence of partial œsophageal obstruction without giving rise to dysphagia.

If there be a *complete* stenosis (which is usually spasmodic) anywhere along the passage, the capsule will halt at that point. If the obstruction be partial, the capsule may pass through readily or it may require a swallow of water to force it through.

A large flat rice powder capsule about the size

of a quarter is filled with bismuth and given to the patient in a tablespoonful of water. This also lands at the mouth of the œsophagus, enters it and normally proceeds rapidly to disappear under the diaphragm with or without making a short pause at the aortic crossing. If a spasmodic stricture exists, the capsule stops and cannot be made to pass further. If organic stricture exists, the capsule will stop even though the stricture has encroached but slightly upon the lumen of the passage. The cause of the stoppage may be either mechanical hindrance by the lesion or a partial spasm or paralysis secondary to the lesion. A swallow of water may force it past, or if the obstruction be considerable, it will remain until dissolved and broken up and the bismuth will then trickle through slowly. A cornmeal mush is now cooked up and a few drams of bismuth subnitrate stirred into it and the patient allowed to eat a few teaspoonfuls slowly. It normally enters the œsophagus readily and proceeds in one or more elongated masses to the diaphragm. If there be a *spasmodic stricture*, and such strictures are most common at the mouth of œsophagus or at the cardia, the mush collects above the stricture. As the patient continues to eat the mush, the accumulation gradually increases until the weight of it becomes sufficient to relax the spasm and then the whole mass passes suddenly into the stomach, after which everything swallowed passes readily without hindrance. In cases of very tight spasmodic stricture of the cardia relaxation may be secured by causing the patient to gag, whereupon the violent attempts at vomiting may open the cardia and then the mush enters quickly. If the obstruction be *organic* and *incomplete*, the mush will lodge above it and slowly trickle through, especially if aided by a few swallows of water, and the size and length of the constricted bismuth stream may give some idea of the size and length of the obstruction. If the obstruction be organic and *complete*, the mush remains at the site of obstruction until regurgitated.

In a case of œsophageal obstruction without atony and dilation of the œsophageal walls, active up and down movements of the capsules and mush may be seen, indicating active peristalsis. If there be atony and dilatation above the stricture, the bismuth collects here, and the mass gives a fair idea of the size and shape of the pouch.

The following case first called the writer's attention to the above method: A young married woman, aged thirty-five, was referred to the Cincinnati Hospital for an X-ray examination of the œsophagus. For some months she had complained of dysphagia, locating the point of

obstruction under the middle of the sternum. She had vomited infrequently and lost a little in weight. Owing to the fact that she had a very evident mitral lesion, her doctor did not use the stomach tube. The neurotic nature of the patient suggested the presence of a spasmodic stricture. Proceeding with the X-ray examination as outlined above, we gave her the small bismuth capsule. It lodged at a point opposite the seventh dorsal vertebra. Several swallows of water failed to dislodge it. The large capsule was then given, and it shared the same fate. We waited perhaps twenty minutes, and the capsules had not moved downward. We then gav. her the bismuth mush. It collected slowly around the capsule until about two tablespoonfuls had been taken, when suddenly the entire mass dropped quickly into the stomach. After that everything swallowed, mush and capsules, both large and small, passed into the stomach at once, without encountering any obstruction. The diagnosis of spasmodic stricture was then made. Her doctor since informed me that the patient did not again complain of dysphagia. Apparently the weight of the mush during the examination permanently overcame the spasmodic stricture.

The following cases represent three types of *organic* stricture:

Mr. A. T., aged fifty-five, had complained for some months of dysphagia. Semi-solid foods and liquids gave little trouble, but the more solid foods produced discomfort. The stomach tube was introduced and met with slight resistance in the mid-dorsal region. No pressure was used upon the tube for fear of doing harm. Upon X-ray examination the first capsule paused at about the fourth dorsal vertebra and then passed into the stomach, but the larger one was permanently arrested here. The bismuth mush likewise paused here, but immediately violent peristalsis was set up, agitating the mush up and down and finally forcing it past the obstruction slowly in a thin stream the size of a small lead pencil and about one and one-half inches long. The diagnosis of organic stricture was made.

Mr. J. G., aged sixty, had for three months been able to take only liquid nourishment, the more solid food causing distress and occasional regurgitation. The œsophageal bougie met with a firm resistance at about the cardia. Upon X-ray examination the capsules lodged just above the diaphragm. The bismuth mush collected in a cylindrical position in the lower part of the œsophagus and could be seen entering the cardia very slowly and in a very thin stream. There was only slight evidence of peristalsis, and most of the mush was still in sight one hour after its

introduction. The diagnosis of organic obstruction with partial atony and dilatation of the œsophagus was made.

Mr. R., aged fifty-three, had suffered with dysphagia for over one year, being now able to take only liquids. Indiscretions in diet resulted in regurgitation of the food several hours later. The bougie met with an obstruction about two inches above the diaphragm. The capsules and mush were seen to collect at this point, as in a funnel, the upper margin of the mass being perfectly horizontal and unagitated by peristalsis, the lower margin converging to a point. It remained here for hours, most of it being finally gotten rid of by regurgitation. The diagnosis of organic stricture with atony and saccular dilatation was made.

The division line between pharynx and œsophagus is an uncertain one, and there is a neutral area behind the cricoid cartilage which may be either pharynx or œsophagus. Much interest attaches to this region, for the musculature of this part of the tube plays an important part in deglutition, and it is here that the bolus of food first pauses during the act of swallowing. It is here that swallowed foreign bodies, especially large ones, tend to lodge, and it is here that the stomach tube first encounters resistance.

Killian,¹ observing that during phonation and respiration this œsophageal entrance is closed and that during deglutition it opened, only to again regain its form after the bolus passed through it, termed it the "*oesophagus mund*," and was able to show by dissection that this sphincteric action was due to three muscles, the cricopharyngeus being the most important.

Eyckman,² in a Roentgen study of the act of deglutition, found that as a bolus is passed back upon the tongue, the larynx and hyoid bone are drawn forward and the "*œsophagus mund*" gapes wide.

In the light of Killian's investigations we may regard the œsophagus as a muscular tube, closed at either end by sphincters, the sympathetic system maintaining their tonic contraction and the vagus producing inhibition or relaxation. The close relation between the upper and lower sphincters—namely, between the œsophagus mund and the cardia—is shown by the fact that in cardiac-spasm there is often an associated spasm of the œsophagus mund, and by the fact that an organic cardiac obstruction may reflexly cause spasm of the upper sphincter.

Excessive sympathetic stimulation or lack of inhibition on the part of the vagus may cause persistent tonic contraction of the musculature or its sphincters, giving rise to the so called spasmodic stricture of the passage. Normally, spasm of the œsophageal sphincters is produced by an excessive stimulus, as by the swallowing of imperfectly masticated food, foreign bodies, or the passage of the stomach tube.

Increased pressure upon a stomach tube to force it past the sphincter or spasmodic area often increases the spasmodic resistance of the sphincter or area. On the other hand, the gentle uniform pressure exerted upon such a spasmodic stricture by a well masticated (semi-solid) bolus may be sufficient to relax the spasm, for it is a common observation that in spasmodic stricture a large bolus of semi-solid food will pass while a little water may be regurgitated. The use of the X-ray in diagnosing spasmodic stricture and in differentiating it from organic stricture depends upon the above observation. The bismuth capsules, being foreign bodies, irritate the spasmodic area, and the spasm is increased; but the even, uniform pressure of the bismuth mush slowly overcomes the spasm. If the spasmodic stricture be of that excessively tight variety, in which the weight of the bismuth mush plus the peristalsis would fail to relax—and I have not as yet met with one of that type—the above method would lead to a faulty deduction. Of the usual clinical methods for recognizing spasmodic strictures, Schroeder's³ water column test approaches this method closely, being based upon the same principle.

In conclusion, let it be understood that the object of this paper is simply to call attention to the X-ray as an aid in diagnosing œsophageal disorders. The ultimate practical value of this method and especially the conclusions to be drawn in spasmodic strictures, need further confirmation.

1. Killian—*Zeitschrift für Ohrenheilkunde*, October, 1908.
2. Eyckman—*Pflüger's Archiv.*, 99 Band, S. 513.
3. Schroeder—*Lancet Clinic*, March 31, 1906.

THE RELATION OF INCREASED BLOOD PRESSURE TO CEREBRAL HEMORRHAGE.

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[Read before Ohio State Medical Association.]

Cerebral hemorrhage has been associated with increased blood pressure for so long a time that a continued high tension pulse is usually held as an indication of oncoming apoplexy. The older writers considered such a pulse as of almost first importance in prognosing rupture of a cranial vessel. And those of later date lay great stress on its presence in all suspicious cases.

Modern methods of diagnosis have, however, somewhat changed the prognostic value of this sign for this one particular termination; and, as in many other instances, have shown that other factors besides this one enter into the onset of cerebral hemorrhage.

Thoroughly made uranalyses early demonstrated that many cases of increased pressure suffered from kidney lesions also and that quite often the cause of death or the cause of all symptoms present was the nephritis.

So long as the determination of increased pressure remained upon what the physician could get through his finger tips no great advancement could be made towards placing this symptom upon sufficient basis to justify great stress being placed upon its character and presence. As we all know it is a very difficult matter to say positively that a given pulse is of a high or low tension by merely feeling of it. Careful use of the Sphygmomanometer has shown that no matter how practiced the clinician may become he will often times misinterpret the true character of the pulse.

But with the advent of instruments for accurately measuring the arterial tension in man the subject of the significance of blood pressure was placed upon a definite basis and is now recognized as a valuable factor in diagnosis. And as uranalysis showed that many cases of high tension were truly kidney cases so the blood pressure instrument has shown that there is a marked difference between the interpretation of this symptom in the remaining cases. But despite the great amount of research that is being done on this subject only a few definite principles have been laid down as positive. There is even yet a question in some instances as to whether the symptom is an indication for treatment or whether it is a signal that nature is bal-

ancing her disordered forces and attempting to establish an equilibrium.

Janeway and others have shown that increased blood pressure is not always a condition to be changed. They claim that it is in many cases a necessary occurrence and that to attempt to lessen it is to jeopardize the patient's chances of recovery or life.

The same divergence of opinion occurs as to its exact relation to certain other conditions. In making blood pressure readings we are continually confronted with a number of grave questions. Which case will suffer the dire effects of this symptom? Which will not? Given a number of cases where the pressure is markedly increased how are we to tell which is to continue at their present occupation unmolested for some time? Which one will die of uremia? Which will suffer from hemiplegia and which will succumb at once to the bursting of a cranial vessel?

While I am unable to answer these questions positively I have found from a careful study of our cases some facts that aid me in making a clearer exposition of the dangers of increased blood pressure and bring me more closely to the correct prognosis of this ever increasing class of patients.

Before referring to the cases in our series, though, I wish to state a few words regarding the method we use in examining the patient. Our cases are subjected to a complete uranalysis both chemical and microscopical; all the facts in the history of the patient that can be obtained are written down and studied in relation to other symptoms; a thorough physical examination is conducted; a blood count is made and the blood pressure is obtained. I consider all of these things important but place the greatest stress on the uranalysis and the blood pressure. The physical examination should not, however, be neglected especially the examination of the heart and arterial system.

It is our custom to take the blood pressure with the patient in a reclining position; the head being slightly elevated. The cuff of the instrument is fastened to the right arm just above the elbow and the arm is outstretched at the side of the patient. The instrument is placed on a level with the heart and the reading taken at that point where the pulse appears at the wrist after it has been obliterated by the increased air pressure in the instrument. We have tried other methods, such as reading at the appearance of the first wavering of the mercury, or when the beats are well established, or by using the point

on the scale where the pressure disappears as the cuff is inflated, but we prefer the method outlined above. In all cases three readings are taken at one application of the cuff, the air being allowed to escape between the readings. In many cases an assistant is asked to conduct the test before it is taken as absolute.

We use a Stanton instrument with a wide cuff, pumped up by means of an atomizer bulb. We find this bulb more satisfactory than the one accompanying the outfit as it does not wear out so readily and can be more easily replaced. It is necessary with the instrument arranged in this manner to make short and rapid compression on the bulb in order not to have the swing of the mercury too great.

With this description of our method of procedure we will turn to the cases used as the basis of this report. All presented undoubted findings sufficient to make them of value; all were followed sufficiently long to see the entire gamut of their symptoms. As several are still living the objection may be raised that no conclusion can be drawn until they have succumbed and the cause of death has been ascertained.

no kidney lesions. Blood pressure 148. On admittance this became lessened for some time; gradually increased later. Patient went home and died while visiting friends.

Case No. 3.—Female, age 42. Came for treatment for bilious attacks and dizzy sensations. No kidney lesions. Blood pressure 200. At present time, seventeen months later, reports herself in good condition excepting for bilious attacks.

Case No. 4.—Male, age 51. Had hemorrhage and hemiplegia seven months before coming for treatment. Blood pressure 155. No kidney lesion. At present time, two years later, patient was able to attend to his business matters satisfactorily. Two months ago blood pressure had risen to 179.

Case No. 5.—Male, age 32. Had had albumin in urine for years. Coma was beginning when first examined. Blood pressure 175. Casts and one per cent. of albumin present in urine. Patient died of uremia two days later.

Case No. 6.—Male, age 40. Came for examination for promotion on the railroad. Blood pressure 200. No kidney lesions. Felt as well as any man.

Case No. 7.—Male, age 57. Had hemorrhage and hemiplegia fourteen months before coming for treatment. No kidney lesions. Blood pressure 140. Improved under treatment. Can walk very well now. Has occasional headaches and epistaxis.

CONDENSED TABLE SHOWING FACTS REGARDING CASES.

No.	Sex.	Age.	Hemip.	Kid. Les.	B. P.	Death.	Results.
1.	Female	44	Yes	No	138	No	Recovery.
2.	Female	47	Yes	No	148	Yes	Hemorrhage.
3.	Female	42	No	No	200	No	Improved.
4.	Male	51	Yes	No	155	No	Improved. B. P. rose to 179
5.	Male	32	No	Yes	175	Yes	Uremia.
6.	Male	40	No	No	200	No	No subjective symptoms.
7.	Male	57	Yes	No	140	No	Improved.
8.	Male	65	Yes	Yes	279	No	Improved.
9.	Male	56	No	Yes	210	Yes	Uremia.
10.	Female	69	No	No	164	No	Improved.
11.	Female	43	Yes	No	188	Yes	Hemorrhage.
12.	Male	32	No	Yes	152	No	Improved.
13.	Female	67	Yes	No	194	No	Improved.
14.	Male	60	No	Yes	142	No	Improved.
15.	Female	44	No	No	188	No	No change.
16.	Male	35	No	Yes	180	Yes*	Kidney lesion. Improved.

*Hem.

As it is our purpose in this paper to assist in the prognosis of life as well as death, we believe these cases can be fairly used. Especially is this true since a few are in better health now than when they first came under observation.

Case No. 1.—Female, 44 years old. Has had cerebral hemorrhage with slight hemiplegia two weeks previous to examination. Blood pressure upon admittance 138. No kidney lesions.

Case No. 2.—Female, 47 years old. Had hemorrhage with hemiplegia seven months previous;

Case No. 8.—Male, age 65. Had had hemorrhage and hemiplegia several months before coming for treatment. Blood pressure 279. Casts and albumin present in urine. Improved under treatment. Had second slight hemorrhage. Improved again and is now living fairly comfortable. Late reports state that he has had third hemorrhage but that he is in fair health.

Case No. 9.—Male, age 56. Blood pressure 210. No cranial hemorrhage. Casts and albumin present in urine. Patient died twenty days later of uremia.

Case No. 10.—Female, age 69. Came for dizziness and weakness, following an injury to head. No kidney lesion. Blood pressure 164. Improved by treatment. When last heard of several months ago, was living comfortably.

Case No. 11.—Female, age 43. Had had hemorrhage and hemiplegia six months before coming for treatment. Blood pressure 188. No kidney lesion. Improved under treatment at first. Had headaches and epistaxis. Died suddenly of hemorrhage two days after returning home.

Case No. 12.—Male, age 33. Came complaining of weakness and pains in head. Blood pressure 152. Casts and albumin present in urine. Improved under treatment. Blood pressure when last examined, 125. Patient feeling very well.

Case No. 13.—Female, age 67. Had had hemorrhage and hemiplegia for three years before coming for treatment. Blood pressure 194. No kidney lesion. Improved under treatment. Now, seventeen months later, reports herself in good health.

Case No. 14.—Male, age 60. Blood pressure 142. Casts and albumin present. Came for treatment, complaining of weakness. Improved under treatment. Two years later, reports himself in fair condition. Blood pressure, 126.

Case No. 15.—Female, age 44. Complained of headaches and tired feeling. No kidney lesions. Blood pressure 188. Did not take treatment. Up to the present time, several weeks later, has not had any bad effects from pressure.

Case No. 16.—Male, age 35. Came suffering from severe sciatica. Examination revealed severe nephritis. Blood pressure 180. Nephritis improved but blood pressure continued to increase and patient died of cerebral hemorrhage preceded by epistaxis and headache.

All of the cases had increased blood pressure; the range being from 138 to 279; the average being 178.5-16. Seven of the cases were women, nine men. The ages ranged from 32 to 69 the average being 40. Seven cases had hemiplegia due to hemorrhage. Six had kidney lesions. Four had neither hemorrhages nor kidney lesions. Five have died—three from hemorrhages and two from uremia. Seven survived the first hemorrhage; one died of the initial rupture. Two had the second and died; one had the second rupture and lived.

With these facts we can begin to answer the questions proposed earlier. As to the first one: "How are we to tell which cases will continue at their present occupation unmolested, for some time"? Of our cases, four, (Nos. 3, 6, 10, 15), can be said to be going on unmolested. They all have some difficulty to be sure but nothing serious enough to hinder them from earning their own livelihood. No. 3 blood pressure 200, came nearly two years ago complaining of bilious attacks. Under treatment these lessened and she has been at home ever since living as usual with-

out any marked inconvenience except an occasional light attack of biliousness. She suffers in no way directly from her increased blood pressure.

No. 6, blood pressure 200, is a laborer who came one afternoon for a physical examination for promotion on the railroad. The morning of the same day he had shoveled two and one-half tons of coal. According to himself he felt as well as any man. Certainly a high blood pressure is no immediate cause of disturbance to him.

No. 10, blood pressure 164, came for treatment after falling downstairs, having injured her head severely. She has been living at home for 18 months very comfortably. Her blood pressure is no inconvenience to her.

No. 15, blood pressure 188, came for examination only. She had been told that her pressure was high and that she was liable to a hemorrhage. She had been and is now earning her living by book-keeping and the only thing she complains of is an occasional pain at the base of the brain and general weakness. None of these cases had hemorrhage or hemiplegia. None kidney lesions. Therefore if our series is a good criterion, we can safely say that those cases of high blood pressure in which there is no kidney lesion and no previous hemorrhage, stand the best chance of continuing at their present occupation unmolested.

Regarding question No. 2—"Which case will succumb to uremia?" Before attempting to answer this question I will state that in the case of all patients who died suddenly a urine examination had been made a short time preceding death and no kidney lesion was found. Taking the six kidney cases recorded we find that three of them died; two from undoubted uremic poisoning and one from cerebral hemorrhage. One is living with an improved kidney lesion and an almost normal blood pressure. One has retired from business but is able to live comfortably. The other is living with a senile brain, a stumbling tongue and lessened physical forces. Other factors besides blood pressure therefore assist very much in answering this question. Examining further we find that in all three cases of death the disease would not lend itself to treatment. Since in all of the cases several doctors had been in attendance. I feel safe in asserting that if they had been amenable to treatment some improvement would have been observed. But on the contrary the symptoms invariably grew worse. In the two dying from uremia the kidney lesion became more and more aggravated

until the secretion from these organs was almost nil.

In the death from hemorrhage the kidney lesion improved but the blood pressure continued to rise.

Of the cases still living the opposite is true. One has a normal blood pressure and for the most part no serious urine findings. One has had two slight hemorrhages but no serious increase of pressure. And one has improved urine findings and a slightly decreased blood pressure.

With these deductions our answer to this question is that those cases of kidney lesion which will not respond to treatment and whose blood pressure will not lessen, are most liable to succumb to uremia, and that those whose blood pressure continues to ascend will be most liable to terminate in hemorrhage.

Question number three, "Which will suffer a hemiplegia?" presents some unusual difficulties owing to the fact that none of the cases (excepting the one who had a slight stroke) had a hemiplegia appear while under treatment. For this reason our direct facts bearing upon the point in question are few. But we can, nevertheless, arrive at a conclusion by taking those facts which do present.

All of the cases who had hemorrhages and died, had blood pressures which were increasing, and the one who had a slight paralysis appear while the former one was present, was unrelenting. Of the seven cases of hemiplegia which presented for treatment all had some increase of blood pressure; three slight, four marked. Because of these facts we certainly have reason to believe that the increased pressure existed with all of these cases before the original hemorrhage.

Only one of these cases had an appreciable kidney lesion and he has survived three hemorrhages.

Therefore we certainly can conclude that the patient having an increased blood pressure without kidney lesion is more liable to have a hemiplegia than the one with such a lesion.

Granting that the cases of hemiplegia presented an increased blood pressure before the first hemorrhage we can also conclude that nearly half of all cases of increased blood pressure are liable to hemiplegia.

Why it is that the case having a nephritis so often escapes the hemiplegia is difficult to state. It may be due as some observers believe to the fact that the high pressure in nephritic cases is dependent upon the kidney lesion entirely and that the arteries generally are not diseased. That the fatal elements of the uremia envelope the in-

dividual before the pressure has reached a sufficient height to rupture a vessel. Or that "long before coma intervenes a reflex action takes place, due to the changes in the glomeruli and the pressure is directed away from the cranial vessels." (Loeb.)

This latter condition may exist more often than we surmise. As we all know it is a common occurrence to have the kidney cases bleed from the nose, mouth or lungs before death.

To answer the fourth question, "Which will succumb to the bursting of a cranial vessel?" we must again cross symptoms and conditions. Of the six kidney cases only one had a hemorrhage but that proved fatal. Of the seven hemiplegia cases three had second hemorrhages; two of these proved fatal. The only case who escaped the second hemorrhage was also the only one having both hemiplegia and kidney lesion.

There is no doubt that the kidney lesion existed when the initial hemorrhage took place. We must answer then that hemorrhages occurring in cases with existing hemiplegia due to former hemorrhage are practically always fatal; that hemorrhages occurring with cases of kidney lesion are equally as liable to a fatal termination as to any other. That second hemorrhages occurring in cases where hemiplegia due to hemorrhage exists with a kidney lesion seldom jeopardize the life of the patient.

Since the above cases were originally examined and treated we have had several others whose histories might be used to swell this table. They have not, however, been under observation long enough to make them of any great value. While sixteen cases are a small number from which to draw conclusions we feel that we can at least use them as a basis for making future prognoses intelligently. From the above conditions and deductions we will summarize as follows:

1. Cases of high tension pulse, no kidney lesion and no previous hemorrhage are least likely to suffer from increased pressure.
2. Cases with kidney lesions which will not respond to treatment or whose blood pressure will not lessen are liable to fatal uremia.
3. Nephritic cases with increasing blood pressure are especially liable to cerebral hemorrhage.
4. Increased blood pressure without a kidney lesion is more liable to terminate in hemiplegia than the one with such a lesion.
5. Nearly half of all cases of increased blood pressure have hemiplegia; 50 per cent. have hemorrhages.
2. A second hemorrhage with hemiplegia due

to hemorrhage already existing, but with no kidney lesion is usually fatal.

7. Cases with nephritis and increased blood pressure are as liable to succumb to the second hemorrhage as to live.

8. Second hemorrhages occurring when both hemiplegia due to a former hemorrhage and nephritis exists are seldom fatal.

And from this summary we conclude:

That while increased blood pressure bears a very striking relation to cranial hemorrhage it must not be used as an infallible sign of such an occurrence but must be weighed in relation to other existing conditions.

EXOPHTHALMIC GOITER: PRESENT STATIS OF ITS MEDICAL AND SURGICAL TREATMENT.

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[Read before Ohio State Medical Association.]

From whatever standpoint goiter is considered, medical or surgical, the subject is of great interest. It is of interest from the surgical standpoint because wonderful strides have been made in operating upon the thyroid gland successfully. Medically great expectations have arisen that one form of goiter, exophthalmic, will yield to a serum treatment such as is being tried by Dr. Beebe, of New York. Beebe does not pretend to have solved the problem but he has certainly done some good work along the line of its solution. Even though he has not solved the problem of the treatment of exophthalmic goiter, his work will stimulate others to try to solve it. If he has fallen short of the solution, he may at least have pointed out to some other observer a line to pursue that may result in its mastery.

In the chronic form of goiter the problem of its cure has been solved. The surgeon now removes the thyroid gland with an impunity approaching that of the removal of the appendix between attacks.

Whether the goiter is handled by the physician or surgeon, the physiology of the gland is of the greatest importance, because it will aid both to solve the treatment.

Like other ductless glands of the body, the thyroid gland yields an internal secretion which exercises an important influence upon the general nutrition and metabolism. Whether this secretion be increased or diminished, trouble results. If increased it seems to act as a toxine as in exophthalmic goiter. If diminished, resulting

in an arrest of development both physical and mental in the child in the symptom complex of cretinism. In the adult, in myxedema.

Of all the physiological work done upon the various ductless glands, none has resulted in more brilliant achievements than that upon the thyroid. It is today better understood than that of any other secretion of a ductless gland. While all ductless glands are supposed to give off something to the blood which is essential to the maintenance of proper nutrition, the physiologist has better succeeded in demonstrating the part that the thyroid secretion plays than that of any other ductless secretion.

Claude Bernard was the father of the thought of internal secretions. The importance of this discovery will become better and better appreciated as therapeutics advance as a result of the discovery.

Great interest was revived in the subject of internal secretions and their effect upon the general organism by Brown-Sequard in 1889, when he proposed as a panacea for waning sexual powers a testicular extract. While this proved valueless, the mere discussion of the subject led to a fuller investigation into the subject of internal secretions and finally a far better understanding of the special internal secretion under consideration, that of the thyroid gland. Organotherapy, the treatment by glandular extracts of diseases supposed to result from a diminished internal glandular secretion, was instituted. Some very brilliant results have been achieved by this means, especially in cases of diminished or abolished thyroid secretion.

By way of comparison, it is well for us to remember that it is not alone the ductless glands that give off an internal secretion. The liver gives off at least two substances which are destined for two diametrically opposite purposes; one for nutrition, glycogen; the other for excretion, urea. These are both internal secretions. So, without further proof of internal secretions it is fair to assume that if the liver gives off internal secretions the thyroid may do the same thing in the same manner, except that the secretion is of a nature adapted to its glandular character.

Although the thyroid gland has no ducts, the colloidal material which is secreted in the cuboidal lined cells finds its way into the general circulation by the rupture of these cells into the lymphatic spaces.

While this internal thyroid secretion plays an important part in the adjustment of nutrition in all that this word implies, the parathyroid bodies

seem to exercise a still more important influence on the very existence of the individual himself.

Why it is that these parathyroid bodies, usually four in number situated at the posterior surface of the thyroids, two upon either side, without cells, should exercise such a complete influence of the individual, is a question upon which physiologists are somewhat at sea. The best thought seems to be, however, that the parathyroid bodies destroy toxins formed in other parts of the body; or at least neutralize these toxins. On the other hand, the thyroid exercises an important influence, through its internal secretion, over nutrition and metabolism.

As long ago as 1856, Schiff found that in complete extirpation of the thyroids in dogs, death resulted in from one to four weeks. After the operation, muscular tremors, apathy, convulsions, emaciation and death resulted.

Surgeons found that after apparently complete removal of a goiter involving both lobes of the gland, either death resulted from tetany or from chronic malnutrition. It was finally concluded that the tetany was the result of the removal of the parathyroid bodies, while the malnutrition, myxedema, was the result of the complete removal of all of the thyroid tissue where the parathyroid bodies had remained undisturbed. As a result of this information, surgeons now aim never to remove the parathyroid bodies, nor to remove all of the thyroid tissue, but to leave one lobe or in the case of the removal of both glands, a small amount of thyroid tissue at the posterior parts of the gland, adjacent to the parathyroid tissue. In this way enough of the thyroid tissue is left to furnish an internal secretion to exercise its function over nutrition and metabolism; and the parathyroid bodies not having been disturbed, neutralize toxins formed elsewhere in the body.

The therapist has demonstrated some very important points to the physiologist in the function of the thyroid gland. Preceding his work, the pathologist had shown that in cases of cretinism there was an atrophy of the thyroid gland; that when this atrophy occurred in the young it was followed by an arrested growth and deficient mental development, in fact all the symptoms that go to make up cretinism. Now the therapist found that some very brilliant cures resulted by the administration of a thyroid extract, grafting pieces of thyroid tissue or injections of thyroid extract. The earlier the treatment has been instituted the more brilliant have been the results.

The therapist has also demonstrated that in

cases of atrophy of the gland in the adult, which results in myxedema, with its symptoms of mental weakness, edema of the skin, and loss of hair, and perhaps final death, many brilliant cures resulted by the administration of the thyroid extract.

While the paper is not dealing with atrophy of the thyroid bodies, but rather with hypertrophy of these bodies or at least increased cell activity, nevertheless the lessons that have been taught both to physician and surgeon by these therapeutic observations are valuable when he comes to deal with the management of exophthalmic goiter.

In some cases of cretinism and myxedema there is a hypertrophy of the thyroid, but here the hypertrophy has impinged upon the glandular structure of the organ producing an atrophy of it.

A most important variety of struma that presents itself to every physician is exophthalmic goiter, perhaps best known by Grave's disease, rather than Basedow's, or Parry's disease, as Osler would ascribe to the latter writer the honor of its earliest and best description.

To make a diagnosis of Grave's disease absolute, we like to have the four cardinal symptoms present of tachycardia, enlarged thyroids, protruding eye-balls and tremor. But we should always have our suspicions aroused when a patient, especially a female, presents herself for examination, when we find tachycardia with tremor present even though there is neither enlargement of the thyroids nor protrusion of the eye-balls. It is always safe under these circumstances to make a presumptive diagnosis of Graves' disease, especially if the thyroid shows a tendency to pulsate. Frequently you find the other symptoms follow, but if you do not who can say that the tachycardia and tremor is not the result of a hyperthyrea which has fallen short of producing the typical symptoms of a true and well defined case of exophthalmia? When the pulse mounts to 95 or 100, with tremor, and without other assignable reason for the disturbance, we should always be on the alert for Graves' disease. Tremor itself is of the greatest importance as an early symptom.

This disease occurs much less frequently in men than in women; 80 per cent. of women to 20 per cent. of men, Eshner. From my own experience I had supposed the percentage in favor of women still higher.

While a hyperthyrea is supposed to be the cause of this disease, there is not an unanimity of opinion among different writers upon the subject. However, the trend of thought is in this

direction, just as the trend of thought is in favor of athyrea for myxedema.

Osler remarks that "The clinical contrast between these two diseases is most suggestive—the increased excitability of the nervous system, the flushed, moist skin, the vascular erythsm in the one; the dull apathy, the low temperature, slow pulse, and dry skin of the other. The thyroid extract given in excess produces symptoms not unlike those of Parry's disease—tachycardia, tremor, headache, sweating and prostration."

If the disease continues longer than six months or a year, after which time some of the cases subside, the disease has been regarded after that time as seldom amenable to treatment.

Diarrhoea and vomiting, glycosuria and albuminuria may complicate the case and finally in some of the cases myxedema; presumably due to an athyrea in the last stages of the disease. But of late great expectations have arisen in the breasts of physicians that the disease may be handled with at least a fair degree of success. Beebe has produced some cures with his recently developed serum, and surgeons seem to have built up even greater hope of cure. Crile observes in a recent article that "The most gratifying feature of the surgical treatment of Graves' is that when a sufficient amount of gland has been removed the disease disappears and rarely relapses. This demonstrates that excision is the key to the situation, and if Graves' disease itself is not due to pathological alteration in the thyroid gland, the thyroid gland at least is one link in the chain of causes and events and the Graves' cycle is broken permanently by thyroideotomy."

As I said in an earlier part of this paper, it is the aim of the surgeon to avoid removing the parathyroid bodies. If they should be removed inadvertently, the future promises us a remedy to combat this fatal error. Experimentors promise us a parathyroid serum that will do this. No bad results follow the removal of the parathyroid bodies of one side if the others are left intact.

Beebe has made some very interesting experiments on dogs. He has found that after removal of the parathyroid bodies, that the tetany which results can be temporarily controlled by the administration of parathyroid extract. The convulsions subside in twenty minutes to two hours. After twenty-four to sixty hours, however, they return. Another injection relieves them a second time and a third; but he has not

succeeded in keeping them alive longer than about three weeks.

Halstead has also met with similar results by the administration of a nucleo-proteid of the parathyroid bodies.

In settling satisfactorily the question of treatment of exophthalmic goiter from either the medical or surgical standpoint it is of the greatest importance that its pathology be clearly defined. This has not yet been done. However, as I said in a previous part of this paper, the consensus of opinion is that if it is not itself the result of a hyperthyrea, it is at least cured by removing a part of the thyroid gland. And as the administration of thyroid extract to a patient suffering with this disease aggravates the symptoms, it seems difficult not to conclude that the thyroid gland is the cause of the exophthalmia.

MacCollum, of Johns Hopkins, has shown in a series of specimens examined after operation or death, that there are always changes in the thyroid gland but that it is uncertain whether these changes are constant. As a result of these examinations it is difficult to prove whether these changes in the gland are a cause or effect of the disease. Some of the cases showed very slight variation in the structure or size of the gland. In his examinations he concluded that the thyroid gland in these cases of exophthalmia are usually enlarged; that they may not be larger than normal, or may be even actually diminished in size. These two latter conditions are of great moment in making our diagnosis; for with this understanding of the pathology of the disease we need not place so much stress upon the question whether the gland is enlarged or not; provided of course that we have clearly defined a satisfactory series of the complex symptoms to justify our diagnosis.

In the series of examinations into the pathology of the disease the parathyroid showed little or no change in structure; occasionally a slightly increased fibrous stroma, but frequently nothing at all.

The only place constant changes were demonstrated were in the thyroid gland, the thymus and in lymph tissue.

The pathology of exophthalmia is thought today, by the largest number of adherents, to be the result of hyperthyrea. Others look upon the disease as an affection of the sympathetic system of nerves. Some regard it as a functional disease of the general nervous system, while the fourth class of adherents look upon the central

system of nerves as the pathological seat of the disease. Thompson, of New York, is out in a recent article in which he ascribes it to an intestinal auto-intoxication.

The adherents of the theory that the disease is the result of an affection of the sympathetic system have this fact in their favor, that there is frequently, but not always atrophy of ganglionic cells and an overgrowth of connective tissue about them. But from the reason that the sympathetic ganglionic cells are frequently found to be normal in structure after death, it would seem to indicate that these changes, when they are found, are due to the disease rather than standing in the light of its cause.

While some pathologists have found changes in the central nervous system, other pathologists dispute these claims on the ground that they believe these changes have been only apparent and not real; that the appearance of changes was the result of a faulty technique that effected post-mortem changes.

On the other hand the adherents of the sympathetic or nervous character of the disease have urged against the hyperthyrea theory some cogent arguments; that in some cases where the gland is removed there is found to be even less colloid material than normal; that the gland is not always enlarged and that it is even diminished in size occasionally.

In opposition to this argument, the adherents of hyperthyrea answer that the partial removal of the gland, if taken early enough, interrupts the chain of symptoms which are comprised under exophthalmia; that if the entire gland is removed, myxedema is avoided by thyroid feeding. But in removing a portion of the thyroid body, that part must not be insufficient to do the work of interrupting the symptoms. It is just as important not to under excise the gland as it is to over excise it. If there is not enough of the gland removed, you fail to interrupt the symptoms, except, perhaps, in part. If you over excise it, you lay the groundwork for a myxedema.

While medical treatment of exophthalmia has not given all the results that could be hoped for by any means, still it is best to try what it will do in all cases for a short time at least, before concluding to turn the case over to the surgeon.

The medical treatment which has given the best results is:

First, rest. This rest must be adapted to the individual and to his purse. Of course in a poor individual who is compelled to struggle for a livelihood, rest treatment is quite out of the question. Then we have all grades of patients

between the poor and the rich. But to be efficient, the rest cure must be carried out to the needs of the individual patient. If it seems to be efficient, continue it, if not, interrupt this method of treatment. Then, in the same individual, you will sometimes care only to modify the amount of energy expended; and even that may not need to be constant. The physician should see the patient sufficiently often to watch the effects of the treatment so that he may modify it according to the individual needs. The tissue waste that accompanies exophthalmia would seem to indicate rest as one method of treatment. This rest should be, as far as possible, both physical and mental. Whatever can be done to lessen the amount of worry associated with the case will tend to lessen the amount of tissue waste.

Second, diet. As tissue waste and malnutrition are important factors in some cases, it becomes of the greatest importance to increase the nutrition as far as possible by a judiciously selected diet. This must be adapted to the individual's taste and its effects. The amount at the same time must be regulated by the physician according to the effects produced. The ability to digest a large or small amount of food will have considerable to do with the regulation of the diet. But rest and other special treatment directed to the stomach will often enable the patient to take different kinds of food and in greater amounts than he would otherwise be able to do. Unfortunately, in some cases the purse will not permit the patient to receive whatever benefits may accrue from this form of treatment as well as the benefits to be derived from rest.

Third, climate. A change of climate is occasionally of benefit; but one must be careful in making this change that it is adapted to the patient. My own experience seems to accord with most physicians, I believe, that a high altitude is harmful rather than beneficial. The tachycardia, in my experience, has been increased. While there is no objection to the patients going to a mountainous region, care must be observed that too high an altitude is not selected. The seashore has seemed to be of advantage in some cases. A sea voyage has also proved efficacious. A short residence in the country has also alleviated some of the symptoms. But wherever the patient is sent, the physician should exercise a watchful eye over the case and if it not doing well, have the patient return; for, you may be losing valuable time when the case is still a good surgical risk.

Fourth, drugs. In a general way, iron, arsenic, strychnia, etc., bitter tonics, have all been used to

advantage. In a special way, for controlling the vascular symptoms, digitalis has proved valuable in my hands as well as in the hands of others. Of strophanthus and convallaria good may be said. These remedies will not work in all cases but will be found beneficial in some to control the distressing tachycardia. They are worthy of a trial at least. If they do good, it will be immediately manifest. I think they are always indicated when we get manifestations of cardiac asthenia. Sedatives, as the bromides, are often useful, but no sedative gives so much relief in these cases as opium; but as the symptoms usually require relieving for a long time, it is a remedy that we are often kept from using for fear we may engraft the opium habit.

Preble does not think well of iodine in these cases of exophthalmia, thinking the symptoms only aggravated by its use. He especially condemns the use of iodothyron.

Fifth, therapeutic agents externally applied. Electricity, in one form or another, has been used extensively; and while I doubt seriously whether any permanent value has resulted from either the static, faradic or Galvanic currents; still, alleviation seems to have resulted in some special cases, whether that relief has been the result of suggestion or not. Better results have followed the use of the X-ray in some cases, it seeming to lessen the thyroid secretion.

Ice bags applied to the goiter and over the heart often give relief, and that too at a time when the slightest relief is so welcome.

Sixth, and last and most important of all the therapeutic agents that have been suggested, if results expected of it are finally achieved, is the Serum Treatment of exophthalmia.

Like all new remedies proposed for the relief and cure of a disease, it is quite likely that the claim made by Beebe, that he has had sixty per cent. recoveries, by the use of a serum prepared by himself and Rogers, consisting of a nucleo-proteid and thyroglobulin prepared from the thyroid gland, is excessive.

Others have prepared a serum from sheep that have been thyroidectomized with less positive results. But some form of serum seems, at least, to promise the greatest relief from the medical side of the house.

Unless the serum treatment of exophthalmia meets its promises, the surgeon has a fair right to claim these cases as his own; although, in spite of all that surgery promises in these cases, I think it is well to remember the words of Frank Billings, recently uttered, before passing all of these cases immediately into the surgeons hands. He says he would "prefer at first to try the rest

treatment rather than to at once submit to surgery. In his experience with the few patients he has seen operated on, entire recovery has not occurred, as it does not occur in those managed medically. Such patients continue to show moderate cardiovascular disturbances and more or less tremor and other evidences of neurosis."

Still, if not successful, or fairly so, in controlling the symptoms, he advises turning the cases over to the surgeon.

The Kocher's, of Berne, Switzerland, have easily done more than any other surgeons to elucidate the subject of operations upon the thyroid. They place great stress upon the selection of cases. One very important point that they insist upon is to keep a clean field during the operation, stopping to secure the slightest bleeding point.

They place great stress upon the differential blood count before you conclude to operate. Indeed upon the result of that count rests largely the decision of whether the case is operable or not. They regard the cases in which there is no relative increase of the lymphocytes as especially serious; except when this lack of lymphocytosis is in the very early cases or in those which are old and have undergone great improvement in all the symptoms. "When the gravity of a case has thus been established," Kocher says, "We can determine the time and decide upon the method of operating without fear." He gives, in the analysis of the cases operated on, a surprisingly small death rate. In the last 91 operations on 63 patients, he has not had a single death. And these operations, remember, were on goiters of the exophthalmic variety. He has lost nine patients out of 254, or 3.5 per cent.; and he believes this percentage could now be reduced still below this figure.

W. J. Mayo feels that his experience justifies him in stating that exophthalmic goiter is amenable to surgical treatment if the time is not too long delayed by the physician in presenting the case to the surgeon; if so, the case is not cured by operation.

C. H. Mayo has reported 176 cases of hyperthyroidism operated on, with nine deaths. There was but one death in the last 75 operations. These earlier operations were attended with considerable loss of blood. He also speaks of their having been cases that had been treated medically for too long a period before operation. He expressed the belief that with the improved technique in operating we may look confidently to the cure of hyperthyroidism, if the case is presented to the surgeon without too great delay.

I have just quoted to you what Billings' ex-

perience has been in following up the post-operative results in exophthalmia; yet, he advocates the operation, after a reasonable trial of medical treatment, provided you have been unsuccessful in attaining results.

Still, the results obtained through the surgeon in exophthalmia have been very brilliant compared to the results achieved by the physician. Unless the serum treatment of the disease proves successful, exophthalmia must be regarded, for the majority of cases, as a surgical malady.

As for the other forms of goiter, the problem is a far more simple one. The operation of thyroidectomy is proving entirely satisfactory. The death rate is remarkably small for an operation of its magnitude.

Wonderful advances have been made in the technique of the operation. Operators have seen the necessity of conserving to the utmost every drop of blood possible. This, taken with the better knowledge when to operate, has given to the world some magnificent results in the cure of all forms of goiter.

Finally, when shall we operate for goiter? In chronic forms of goiter the operation may be done with every likelihood of a successful issue.

(1). If the goiter is small, and giving no pressure symptoms, it is wholly a question of esthetics if the patient wishes it removed.

(2). If on the contrary the goiter has reached a considerable size and is growing, it is advisable to operate, for a considerable per cent. of goiters undergo, after a time, malignant degeneration.

(3). If the goiter is making so much pressure on the trachea as to compress it, occasioning attacks of dyspnoea, the operation becomes imperative. In this class of cases the results of the operation have been very brilliant.

It is a more difficult problem to know when to attack surgically an acute goiter or the struma of an exophthalmia.

Surgeons never like to operate on a goiter in the face of too great an infection, if they can find any other time in which to attack it. This can usually be done.

I regard it inadvisable to operate on an exophthalmia when the tachycardia is very great and the nervous symptoms and psychical phenomena are at their height. Especially is this true if at the same time the lymphocytes show no relative increase as pointed out by Kocher.

Another factor that must always be weighed before advising operation, is that a considerable number of patients suffering from exophthalmia recover without or with treatment. On the other hand we must not assume that a cessation of

symptoms, means a cure. If the intervals of improvement broaden, the attacks shorten, and their intensity lessen, we may fairly presume that a cure will ultimately be attained without surgical interference. But if the intervals of improvement are short and the intensity of the attacks only slightly lessened, we would best select one of these intervals to operate.

What is to be our attitude toward cases of exophthalmia which show no perceptible enlargement of the gland? Here so much depends on the diagnosis. But in making a diagnosis of exophthalmia, we must not insist too strongly on our semiotic tetralogy of eye-protrusion, hypertrophied thyroid, tachycardia and tremor. We may have only a portion of these signs, yet have a true case of Graves'.

If after a reasonable trial of medical treatment without improvement, the case should pass into the hands of the surgeon, when he should remove the thyroid; having regard for the amount of the hyperthyroid secretion and the intensity of its symptomatic effects, rather than the size of the gland.

The size of the goiter may have nothing to do with the intensity of the hyperthyroid intoxication. Its removal interrupts the disease sharply and effectively in most cases.

Much of the prejudice that exists against an operation for exophthalmic goiter is the result of operating upon cases that had been too long in existence before operative measures were instituted. Taken as a last resort operation and at a time when the infection is at its height one can only look for a frightful mortality as an immediate result upon the one hand and poor results should the patient survive in the case of the too long delayed operation. Taken at a proper time, which is usually early in the disease, or in an interval of improvement, the results of an operation are frequently brilliant.

What is to be done surgically if the disease is at its height. Certainly not at this time to excise the gland or even a portion of it. Now is a time for preliminary treatment in the use of the X-ray for three weeks to lessen the functional activity of the thyroid. To secure for the patient an absence of all excitement and apprehension of the results. Rest and good feeding are valuable at this time. At the end of this period a preliminary ligation of the superior thyroids may be undertaken. Or, if the patient seems in a fairly good condition the excision may be made at once. If undertaken now remove the half of the gland that is most enlarged and the isthmus, leaving the other half alone. Following this rule, the right half will usually be removed because it is the one

that is enlarged more frequently than the left. I have convinced myself that the dangers of the operation are not great if one does not wait long after an operation is clearly indicated.

The technique of the operation is important, but the time selected in the case to operate is of still more vital importance. The important point in the operation is to prevent hemorrhage as you proceed in the operation. The time to operate is when you have got away from the most violent symptoms of infection, even though you make a preliminary ligation to do this. In the operation one must watch with great care to control effectively the hemorrhage from the superior thyroid arteries as it is from these arteries rather than the inferior thyroids that your troublesome bleeding will come.

The amount of gland to be removed in this operation is very important. Preceding the visit of Kocher in this country during the meeting of the American Medical Association last year, it was the policy of the Mayo's to remove all of the most enlarged lobe and a portion of the other. In response to a question propounded to Kocher before the Surgical Club at Rochester, Minn., he stated that it was now his custom to remove only the larger lobe and the isthmus. Immediately the Mayos changed their plan so as to conform to his suggestion. The results of their recent work speak for the importance of the suggestion which they have adopted. For their successes are very brilliant. In a recent visit to their hospital I was struck with two things: the large number of exophthalmic goiters upon which they are operating, and the impunity with which they do the work. In one week I saw some twelve operations of this character without the appearance of any unfavorable symptoms arising. And some of these cases were seemingly rather unfavorable ones for operation. C. H. Mayo took occasion to remark at one of these clinics that he thought the importance of the parathyroid bodies had been exaggerated, for he had removed them on the one side a number of times without the appearance of tetany resulting.

Some of the latest reports on the use of Beebe and Roger's serum have not been quite so flattering as the earlier ones. But still the serum seems to be doing good work in some cases. What it starts out to do is to bring about a cytolysis, or destruction of the thyroid cells which may be increased in number or simply in activity. But we must remember that many of the deaths that result following operative measures have died of this very cytolysis which Rogers and

Beebe seek to obtain. So that one must proceed cautiously in the administration of this serum that they not bring about a greater cytolysis than was their original purpose, namely, to reduce the activity of the glandular structure rather than its complete abolition.

It would seem to me, after a fairly careful examination of this subject, that operative measures should be instituted in cases of exophthalmic goiter after a reasonable trial of medical measures. But if one would secure the best results from operative measures delays must not be too prolonged. Then too, as I said in an earlier part of the paper, selection of the time is of vital importance.

One final word on the subject: we must remember that 20 per cent. of Graves' have no enlarged thyroid, simply increased cell activity. Just as we sometimes have increased cell activity in the stomach when the condition of excessive hydrochloric acid arises. This increased cell activity in the thyroid gives us a hyperthyrea with all of its attendant symptoms of Graves'. Again, we will have perhaps 20 per cent. of Graves' without the eye protrusion, at least in so minor degree as to be scarcely if at all manifest. I am speaking of fairly early cases without these two cardinal symptoms, symptoms which may not appear before the death of the patient, or to put in another way, death may result from Graves' before these two symptoms appear. In rating the time which the disease has been in existence we must remember that these two later symptoms are frequently late symptoms and in making up our mind whether the case is one preferable for the physician or surgeon we must not insist too strongly upon these two symptoms, but rather upon the balance of the complex of symptoms that constitute Graves'.

In closing, I would emphasize the necessity of not prolonging medical treatment for the cure of exophthalmic goiter in the face of no results. To secure the best results from excision of the gland as well as to diminish to a minimum the risks of the operation, the surgical intervention should not be one of last resort.

CYSTITIS FROM A MEDICAL STANDPOINT.

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From a clinical standpoint inflammations of the bladder are few in number, but each form may in turn have many variations.

It shall be my purpose to consider cystitis from a purely medical standpoint and under the following heads: 1. Traumatic. 2. Simple cystitis; acute and chronic. 3. Gonorrheal. 4. Tubercular. 5. Cystitis due to prostatic hypertrophy and urethral stricture.

Traumatic cystitis is a mild bladder irritation caused by a concentrated urine containing crystalline and phosphatic deposits. The passage of these irregular, hard, sharp particles cause abrasions of the mucous membrane, pain and inflammation, often with some pus formation. Should a larger calculi have already formed within the bladder, all symptoms will be markedly aggravated.

Trauma by chemical irritation is occasionally produced by the direct injection of a strong chemical solution into the prostatic urethra and bladder.

Again, a strongly acid or ammoniacal urine, the ingestion of cantharides or like drugs, will produce irritation and trauma of the mucous membrane.

Whatever be the cause, this form of cystitis usually yields very promptly to simple treatment. The patient should be kept in bed, if possible; the urine should be rendered bland and non-irritating; they should drink freely of water; the bowels should be kept well open and attention given to the general health. If a large calculus is present, it should be removed by surgical means.

Simple or bacterial cystitis is the form of disease usually referred to as cystitis, be it acute or chronic in character.

Cystitis from whatever cause is always due to some irritation and infection. Infective organisms have been introduced and are nearly always present in the urinary tract, but may remain latent indefinitely provided there be no abrasion of the mucous membrane. The tubercle bacilli, for the most part, find their exit from the body by way of the kidneys and bladder, and so we might name many of the infective bacteria and cocci which are more or less constantly present, but which do not produce inflammation except under certain conditions.

It is a well established fact that one of two conditions must exist before a cystitis occurs—first, an abrasion of the mucous membrane of the urinary tract; second, a retention of urine, partial or complete. With the occurrence of either of these conditions and the presence of infective organisms in the urine, the resultant cystitis will be of greater or lesser virulence and acute or chronic in character. Once such an infection occurs the determination of its source is not always an easy matter.

Acute inflammations are more frequent about the neck of the bladder, involving the trigone and in the male the prostatic urethra, and are more frequent in men than women.

The first symptom noticed by the patient is a sensation of weight and a dull pain in the pelvis, which is increased by motion or by pressure over the bladder. Pain may be present in the iliac and lumbo-sacral regions, and in women one may have to differentiate cystitis from metritis or other inflammations of the uterus and its adnexa. The onset of acute cystitis from whatever cause is usually attended by a sharp rise in temperature, prostration and extreme bladder irritability. The urine is voided frequently and a small amount each time; the act is accompanied by straining and a scalding sensation at the neck of the bladder. The urine is acid in reaction, clouded and contains mucus, pus, shreds and some blood corpuscles. The acute attack lasts from five to ten days and if not relieved becomes chronic.

In chronic cystitis the greater portion of the bladder wall is involved, the mucous membrane is irregularly thickened, its surface is roughened, and here and there are mottled or brownish colored patches caused by sub-mucous hemorrhages. Here and there may be seen small ulcers and granulations, which involve the sub-mucosa, but rarely, if ever, do they perforate the bladder wall. Because of continued straining and tenesmus, the walls of the bladder become hypertrophied; trabecula are formed, which throw the mucous membrane into numerous folds and pockets. Such a condition is often detected by the searcher or seen if a cystoscopic examination be made. The urine of chronic cystitis is full of pus and bacteria, but rarely is there any blood unless there be a stone, tumor or tubercular involvement. Its reaction may be acid or alkaline.

Acute cystitis may recover spontaneously or with mild treatment, or become chronic in character. Rest in bed is absolutely essential to the best interest of the patient; the urine should be rendered bland and non-irritating; the patient should drink freely of water; the diet should be light and nutritious; the bowels should be kept

well open with salines or equal parts of phosphate and sulphate of soda—a heaping teaspoonful in a glass of hot water at bedtime. For the pain referred to the glans, the penis should be soaked in a tin cup of hot water for five or ten minutes at a time and several times during the day; the hot sitz bath is also very beneficial. If deemed absolutely necessary to irrigate the bladder, the catheter should be carefully sterilized, the meatus cleansed with a 1-5000 bichloride solution, the urethra irrigated with a hot saline or boracic acid solution and the hands thoroughly cleansed.

Of medicinal agents boracic and benzoic acid may be used in five to ten grain doses every three or four hours as indicated. Urotropin in five grain doses three or four times a day is, as a rule, preferable to either of the others. If the bladder is very irritable and painful, one or two drams of a 10% gomonol solution may be injected into the bladder once or twice a day; after the bladder has been irrigated; this oily solution is slightly anesthetic and very soothing.

If the temperature is high, ten grain doses of sodium salicylate every three hours is very effective.

In chronic cystitis attention should be given the treatment of the acute type, but, in addition, more active measures must be employed and over a longer period of time. If it is chronic cystitis in the female, direct applications of silver nitrate (ten to twenty grains to the ounce) should be made to the ulcerated areas through an endoscopic tube; in the male the instillation of a few drops of silver nitrate (one to ten grains to the ounce) may be used in the bladder; or potassium permanganate irrigations, 1,10000 at first and gradually increasing in strength until 1-6000 to 1-4000 is well borne. In all forms of cystitis the two-glass urine test should be a routine practice, and the trained eye will detect at a glance whether any improvement has been made since your last treatment.

Strictly speaking, gonorrheal cystitis in the acute form is an acute posterior urethritis extending back and involving the bladder, and for clinical purposes is strictly a disease of the urethra. But when long continued and uncontrolled a contracture of the vesical orifice takes place, and then does it cease to be a urethral disease and becomes a true vesical cystitis.

In true gonorrheal cystitis it is claimed by some that there must be some cause over and above a simple gonorrheal infection. As the small orifices of the ureters are the guardians against an ascending infection to the kidneys, so

is the narrowed membranous urethra the natural guardian of the posterior urethra and bladder.

The most common method of causing posterior infection is the forcing of injections too far back into the urethral canal. Again, instruments of too large caliber or unskillfully handled in the membranous urethra may cause an abrasion of the mucous membrane and thus afford a culture medium for the gonococci and other infective organisms. Again, the gonococci may be carried directly into the bladder by the instrument itself.

Anything that produces local congestion such as running, dancing, bicycling, sexual excitement or the use of alcoholic stimulants affords a rich field for the gonococci to grow upon. Even erotic thoughts produce congestion of the prostatic sinuses and afford a means of causing gonorrheal cystitis. Bladder infection does not usually occur until about the third week after the primary infection, unless through some lack of care or accident the gonococci have been carried to the bladder early in the course of the disease.

A diagnostic feature of this form of cystic disease is that it confines itself almost entirely to the prostatic urethra and neck of the bladder. If this inflammation persists, a contracture of the vesical orifice takes place and can only be relieved by operative measures.

The first symptoms that present themselves are a little irritation along the urethra, a dull ache in the perineum with occasional sharp pains and a little greater frequency in urination. But as the inflammation progresses the pain becomes more acute and the patient often cries out in great agony. Urination becomes more and more frequent until at times it amounts almost to an incontinence and still the urinary desire is not relieved.

The urine is often tinged with blood, and contains quantities of mucus and pus evenly distributed throughout the fluid which is almost uniformly acid. Acute prostatitis often complicates the cystitis, but it is not often that abscess occurs.

The urinary stream is smaller because of the swollen prostate, and often complete retention occurs.

Gonorrheal cystitis not properly cared for and treated persists and the bladder is permanently damaged, weakened and diseased, while proper and active treatment often leaves the bladder but slightly damaged if at all. As Keyes remarks, "Gonorrheal cystitis may last only a few hours, while its effects may last for a lifetime."

In the treatment of gonorrheal cystitis the patient should be put to bed and kept quiet; the urine rendered bland and non-irritating; the diet

should be light and nutritious; hot penile immersions and hot sitz baths to allay pain; the prolonged hot rectal douche affords much relief and comfort, and if an opiate must be used a suppository containing $\frac{1}{4}$ gr. of morphia is the best.

Now that the bladder irritability is lessened more active and astringent measures may be used. Intra-urethral and intra-vesical irrigations of potassium permanganate beginning with 1-8000 and gradually increasing until a 1-3000 to 2000 strength. Instillation of a few drops of silver nitrate in 1% to 2% strengths are well borne and effective in some cases. But whatever method or irrigations are used the patient should be watched closely for complications that are apt to arise suddenly. Push your treatment as vigorously as possible, but never forget that there is danger of over treating, as well as under treating. In many of these cases the injection of one or two drams of a 10% Gomonol solution is very soothing to the irritable and congested parts. Another valuable aid in the treatment of these cases is the application of the dry or wet cups to the perineum after it has been carefully shaven, cleansed and smeared with vaseline.

Often the patient goes from bad to worse; then it is that surgery must be looked to for relief and possibly ultimate cure.

Tubercular cystitis is as a rule secondary to a tuberculosis in some other part of the body, however, the bladder is subject to a miliary tuberculosis the same as any other part of the organism. But whether the infection be primary or secondary there are two well-recognized forms: First, where the ulcerations occur about the ureteral opening; second, where the ulcers occur about the neck of the bladder. Thus it will be seen that the seat of tuberculosis is by election in the trigone and neck of the bladder; a fact proven by clinical experience.

The primary tubercular deposit does not take place in the bladder epithelium, but in the subepithelial connective tissue, and the tubercle spread much more rapidly if there has been a previous inflammation of the bladder. The tubercular ulcers are characteristically round and discoid in appearance.

Tubercular cystitis is a localized and specialized inflammation of the bladder with characteristic symptoms. The course of the disease is varied and obscure, but one of two symptoms present themselves at the onset of the disease.

"Hematuria" or bladder "irritability"; whichever appears first, the other very soon presents itself.

The hematuria is characteristic and is a prominent symptom at the onset and is present in

greater or lesser degree until the very last. The hematuria of stone in the bladder is different, in that the hemorrhage is increased by change of position, jolting and exercise. In neoplasm of the bladder often a free hemorrhage with clotting occurs, which is not true in tubercular cystitis.

In tubercular disease the hematuria may increase or diminish in amount, but it is always present, although in the early stages the urine may appear perfectly clear, yet centrifuge such a specimen and microscopical examination will always reveal the presence of red blood cells. As the disease progresses the urine becomes more smoky in appearance and the hemorrhage becomes less profuse at any one time, but it is the more continuous with now and then a few drops of blood squeezed out just at the close of urination.

The bladder irritability is by far the most distressing symptom to the patient. At first urination is not so frequent, but as more and more of the bladder mucosa is involved the greater becomes the frequency, and correspondingly greater the pain until a few drops in the bladder causes tenesmus. Nor does the pain cease after passing the small amount, but the consequent spasm and soreness does not disappear until another urinary act becomes imperative and the same painful experience becomes again the portion of the already tired and distressed patient.

With the formation of the ulcers or a mixed infection there comes another pain even more imperative, a sudden spasm of the bladder causing a few drops of urine to be "literally squirted" out upon the patient's clothing in spite of all he can do. This spasm before and the intense one following immediately gives the patient no rest by day or night, and well may he say that anything is preferable to such an existence.

Instrumentation is specifically contra-indicated in tuberculosis of the bladder because of the great pain and free hemorrhage it produces. Again an almost pathognomonic sign in this disease is the intolerance of the bladder to silver nitrate, which is so efficient in simple cystitis.

The urine of tubercular cystitis is acid in reaction, and the striking thing is that it remains acid no matter how foul the urine may be with mucus; pus, or shreds, although a strong ammoniacal odor, is often present. In a mixed infection it may be possible to have an alkaline urine due to the excess of pyogenic cocci. But clinically alkaline urine is a rare condition, no matter how severe the mixed infection. This persistent acidity of the urine is an almost pathognomonic sign of tubercular cystitis.

Chemical and microscopical analysis will reveal

the presence of albumin, pus, red blood cells and bladder epithelium. Should any casts or renal elements be present, you almost certainly have a tubercular involvement of the kidneys.

The chief diagnostic point is the finding of the tubercle bacilli in the suspected urine. As the tubercle bacilli are not usually present in large number it is very probable that repeated staining will be necessary before one is able to demonstrate the presence of the bacilli, no matter how certain clinically one may be that such a diseased condition exists.

But as one does not always have a skilled microscopist at hand and if not skilled in staining of specimens and the use of the instrument, one must rely upon clinical findings and the patient's personal and family history. By close study the trained clinician does not often err in his diagnosis, but the microscopic finding is proof positive, confirming clinical findings.

If one is not a microscopist there remain two methods of diagnosis that any physician can use: 1. The culture method. 2. The inoculation of the guinea pig with some of the suspected sedimented urine. The growth upon the culture media and the post-mortem findings are reliable and trustworthy.

There are four prominent, differential features of tubercular cystitis: 1. Hematuria. 2. Bladder irritability. 3. Persistent acidity of urine. 4. Intolerance of silver nitrate and kindred solutions.

There is not much danger of tubercular cystitis being confounded with any other inflammation; but in renal tuberculosis and contracture of the vesical orifice the differentiation is at times very difficult. In suspected renal involvement the cystoscope should always be used, and once you see that peculiar ulcerated and inflamed area about the ureteral orifice there can be no doubt of your diagnosis. In differentiating contracture of the vesical orifice you have another hard problem and one which many fail to solve; the patient's history, and the increased length of the urethra are valuable aids in diagnosis. Again let me urge that instrumentation be not resorted to except as a last means, and then the physician should be gentleness itself, for such an examination is exceedingly painful.

The prognosis as to length of life is good, with an occasional recovery; but the prognosis as to the patient's personal comfort and peace of mind is very discouraging.

The treatment of tubercular cystitis naturally divides itself into hygienic—local and operative.

Good hygienic surroundings are as important in this as any other form of tuberculosis. Plenty of fresh air and sunshine are the best of tonics

along with a good, plain, wholesome and nutritious diet. The bowels should be kept well open and the skin should perform its function properly.

The local treatment is important for the number of "*dont's*" that present themselves. In the early stages local treatment is absolutely prohibited, but as the disease progresses some treatment to control vesical spasm and pain may be employed. Irrigations must not be used as they are not only very painful but do absolutely no good. Silver nitrate, boracic acid and potassium permanganate so soothing and effective in simple and other forms of cystitis are prohibited here because of the violent pain and bladder tenesmus produced; this is especially true of the silver salts. So one must work along the best they can, using such drugs as afford relief regardless of their curative powers. Solutions of corrosive sublimate, guaiacol valerianate, thallin and gomonol have all been used with varying degrees of success and failure to the utter disgust of the patient.

Operative measures for bladder drainage offers the most relief, comfort and possibility of a cure to the patient.

In cystitis due to prostatic hypertrophy and urethral stricture the most prominent symptoms are frequent and difficult urination and dribbling of urine from overflow or vesical irritation.

We will not discuss the etiology and diagnosis of prostatic hypertrophy, but granting its occurrence we are interested in the inflammatory changes which produce a cystitis most distressing to the patient. Such a cystitis is as a rule due to the use of a dirty catheter at some time, but occasionally it seems to begin with no apparent cause. Although this form of cystitis is usually very painful, yet it may be mild in form and continue for years without causing the patient much if any pain or inconvenience other than an increased frequency of urination.

The urine is usually alkaline in reaction, but occasionally it is faintly acid, although it retains its ammoniacal odor and another odor peculiar to itself which eventually disappears of its own accord.

The urine is cloudy and smoky in appearance, is full of mucus, pus, bladder debris, some red blood corpuscles and heavy deposits of the phosphate and urates.

In the cystitis of prostatic hypertrophy, catarrhal prostatitis is always present. Seminal vesiculitis is as a rule present and peri-prostatitis with abscess formation is less frequent. A complete or partial retention occurs and the already overworked kidneys are subjected to the danger of an ascending infection. The ureters become dilated, thus permitting the bacteria to work upward and

kidneyward, producing a nephritis or pyelo-nephritis which sooner or later may mean the patient's death. Often a vesical calculus aggravates the existing cystitis.

If a patient fifty-five or more years of age presents himself suffering from the symptoms just described, the prostate would at once be suspected as the seat of his trouble, but a pyelo-nephritis produces a train of symptoms not unlike those of cystitis due to prostatic hypertrophy, and unless very careful one is liable to treat the prostate when a diseased kidney is staring him in the face.

But keeping in mind the patient's age; the findings by rectal palpation; the determination of a residual urine; the urine and urinary characteristics; the increased length of the urethra; the absence of casts and renal elements; the difficulty or impossibility of passing a soft rubber catheter one is not apt to err in the diagnosis of a cystitis due to prostatic hypertrophy.

One more important point in reference to the pus in the urine of such a cystitis. "The pus from a diseased kidney sinks to the bottom of the receptacle and forms a compact level base like sand, while pus from a cystitis forms a billowy, fluffy deposit and often does not sink fully to the bottom of the glass, but remains more or less suspended in the fluid.

The treatment of cystitis divides itself into palliative and surgical. Palliative treatment naturally divides itself into the hygienic, systemic and local.

For the man suffering from a cystitis due to prostatic hypertrophy there are several don'ts that must be impressed upon him, for upon their rigid observance depends to a great extent his personal comfort and length of life. "He must avoid all exposure to cold; draughts are dangerous and wet feet fatal." His clothing, especially underwear and footwear, must be seasonable. Exercise short of fatigue with plenty of fresh air and sunshine are beneficial; but any excess be it physical, mental, sexual or alcoholic must be studiously avoided, with especial stress upon the last two named conditions, for his motto must be, "Beware of congestion."

His diet should be plain, wholesome, easily digested and nutritious. He should eat sparingly of meat and fruit, and especially not of strawberries, asparagus and grapefruit. His bowels must be kept well open; the urine rendered bland; he should drink freely of good plain water or some of the mild aperient waters.

The bladder irritability and prostatic congestion must be met and controlled in so far as is possible; and the most important means to this end is the hot sitz bath, and the prolonged immersion of

the penis in a tin cup of water just as hot as the patient can stand.

The systemic treatment consists in meeting conditions as they arise, paying especial attention to the digestive function and the bowels. Urotropin in five-grain doses three or four times a day is without doubt the best drug in these cases, for it renders the urine bland aseptic, destroys the fetid odor, and this with its mild diuretic action makes it an almost indispensable drug.

Benzoic acid and bi-borate of soda in the proportion of two drams of the former to three drams of the latter in twelve ounces of water, a tablespoonful three times a day is a very efficient medicinal agent.

If the pain is so severe as to require an opiate a suppository containing a $\frac{1}{4}$ gr. of morphia inserted into the rectum will relieve the pain and quiet the patient. The use of morphia in this class of patients should be by suppositories instead of administration by mouth, as opium deranges an already disordered stomach and constipated bowel. Care must also be exercised that the patient does not become addicted to the drug habit and thus be rendered inoperable and incurable because of the habit which he cannot leave off.

Prostatic enlargement often comes about very gradually, the bladder is enabled to empty itself and no discomfort is experienced except a little greater frequency in urination. By some indiscretion or exposure a local congestion is produced and a complete retention occurs.

Before attempting to pass a catheter; the hot sitz bath; hot penile immersions; prolonged intra-urethral irrigations with a mildly antiseptic solution and a thorough emptying of the bowel by a brisk saline. But failing in all your efforts to pass either a soft rubber, a silk mercier or a full curved prostatic metal catheter, operative measures alone remain. However, if successful in passing a catheter the bladder should be slowly emptied, then washed with a hot boracic acid solution, then an amount of a mildly antiseptic solution, equal to one-half the amount of the urine withdrawn is put back into the bladder; failure to do this often causes syncope and death, or at least sets up a violent cystitis due to congestion caused by the sudden relief of bladder tension.

The operations of choice in acute retention from whatever cause are aspiration and external urethrotomy without a guide.

As the prostatic hypertrophy, or obstruction increases the amount of residual urine increases and there begins a new and trying life for the patient—the catheter life. As catheterization will be long continued unless a radical operation be performed the patient must be carefully instructed as to the

care and absolute necessity for perfect cleanliness in using his catheter. The patient should have from two to six catheters, and after using one it should be boiled, if a soft rubber or metal, but if a silk mercier, washed in soapsuds, rinsed with alcohol and then sterile water; then wrap in a clean piece of linen and put away for future use. Before using again the catheter should be rinsed in alcohol, then hot water, the catheter lubricated with a sterile lubricant, the meatus and urethra irrigated and the patient is ready to pass his catheter in comparative safety.

The frequency of catheterization will depend upon the bladder irritability and the amount of residual urine, but a general rule is once a day when the residual urine is two ounces or less, twice a day when from two to six ounces, and for larger amounts as often as is necessary. Occasionally cases will demand catheterization and irrigation with boracic acid solution every two or three hours day and night. In mixed infection use permanganate of potash from a one in 8000 to a one in 2000 strength. Instillation of a few drops of silver nitrate is useful in some cases.

In obstructive cases, or irritable bladders continuous drainage by catheter is essential and of decided benefit. The soft rubber catheter preferably is inserted into the bladder and held in place by narrow adhesive strips attached to the catheter and sides of the penis. This catheter should be removed, washed and sterilized at least once in every twenty-four hours, the urethra irrigated with a hot boracic acid solution, then the catheter reinserted and fastened in place.

The bladder may be irrigated with the catheter in position as often as necessary. As soon as a catheter becomes the least bit roughened it should be destroyed.

In retention with overflow the patient's condition is more distressing. If his condition is not relieved by palliative treatment and he refuse radical operation his only alternative is wearing a urinal, which is only useful during the day, and at night when his symptoms are worse he must be content with his catheter and a wet bed unless he can sleep quietly on one side, then he may use a large rubber penis bag with some degree of comfort.

Cystitis due to stricture is as a rule superficial. If the obstruction to the outflow is not removed the bladder walls become thickened and contracted, diminishing the bladder capacity while the caliber of the stricture becomes smaller. Frequent urination, a stoppage, straining and a dripping amounting to an incontinence are characteristic symptoms.

The treatment of the cystitis is the removal of the obstruction, by gradual and systematic dilatation or operation.

Rigid antisepsis should be observed in treatment of stricture. Determine the caliber of the stricture by means of a bougie-a-boule, after cocainizing the urethra with a 6% or 8% solution of cocaine.

Using solid steel sounds, or shot silk bougies, begin with one, one or two millimeters smaller than the caliber of the stricture, increasing in size one millimeter each time until you have dilated the stricture two or three millimeters larger than its caliber; then irrigate with a hot and mildly antiseptic solution. Dilatation should be repeated each five to seven days until a No. 30 or No. 32 French will pass with comparative ease.

If a stricture of still smaller caliber, begin with a filiform bougie or a filiform wedge, then using shot silk bougies and gradually dilating as in stricture of large caliber. If it is an impermeable stricture, operation must be performed.

If seminal vesiculitis is present, the seminal vesicles should be massaged at least once a week according to the Wishard or Fuller method.

But whatever methods one employs in any form of cystitis, certain serious complications are apt to arise with little or no warning, as urethral chill, epididymitis, orchitis, epididymo-orchitis and uremia. These must be met promptly and vigorously in the order mentioned by hypodermic injection of morphia, rest in bed, Brewer's dry poultice, diuretics, hot packs, salines and other measures that will suggest themselves to you.

"An abdomen filled with pus does not constitute peritonitis. It is the quality (the virulency) rather than the quantity of pus that makes for the patient the dangerous delirium; the dry tongue; the ilius and septic nephritis.—Fletcher.

The Senn (fibroid) appendix gives rise to a classic symptom-complex. It follows either an acute inflammatory process, or a normal involution of the appendage during which the lymphoid tissue is replaced by connective tissue. The digestive disturbances and various neuralgias are due to an irritation of nerve filaments entrapped in the newly-formed scar tissue. In these cases there is no tenderness at McBurney's point, yet a persistent tenderness at the Morris point. This point is on the McBurney line one and one-half inches from the umbilicus, and is tender on pressure because of an involvement of the right lumbar (sympathetic) ganglia.

PSORIASIS.

BY V. P. BOREING,
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[Read before Ohio State Medical Association.]

Psoriasis is one of the most common known diseases we have to deal with in dermatology, and on account of its easy diagnosis I will devote my entire paper to the treatment of this disease.

Taking into consideration that psoriasis is a disease that cannot be radically cured in the large majority of cases and almost invariably returns at irregular intervals, we should be very guarded in our prognosis of this disease. We can cause the efflorescence to disappear and by hygienic and therapeutic measures prevent their recurrence for months or even longer at a time. Another point to remember is that psoriasis occurs not only in patients who have other ailments, such as dyspepsia, neurasthenia, sclerosis or infections of the internal organs, but it may suddenly appear upon a perfectly healthy and robust individual.

In the first class the psoriatic eruptions are often coincident and apparently dependent on the exacerbations of the internal arrangements, and in such cases the disease improves under the treatment of the pre-existing disease.

In the other class, where the closest examination fails to disclose any organic derangements, all the manifestations are entirely local. They are, as a rule, the most difficult to treat, requiring both internal and external treatment.

The manifestations of the disease may be few in number and localized or may be so numerous that almost the entire skin surface is affected. In the first class the treatment may be given in the office or by the patient himself, but in the second it requires the aid of some intelligent person to carry out the treatment of the disease.

The internal treatment consists first in rectifying any internal derangement that may be present. Some need tonics—iron, quinine or strychnine—with rational exercise, change of environment and climate, removal from worry and complete rest. Others have gastro-intestinal derangements that necessitate treatment.

In this class of patients, if we don't follow out this rule our treatment of the disease is bound to be unsatisfactory.

Numerous remedies have been recommended in the treatment of this disease, viz, mineral acids, diaphoretics, cod liver oil, antimony, mercury, iron, arsenic, K. I. and of late years adrenaline.

I have discarded as unreliable remedies all of these, with the exception of arsenic. K. I. is highly recommended by some, but I am of the

opinion that all cases benefited by it are of a syphilitic origin. Arsenic is employed in the treatment of psoriasis in the form of Fowler's solution, Pearson's solution, Donovan's solution and the arsenic pill, but I find it is a great deal more satisfactory to administer the drug myself hypodermically each day, gradually increasing the dose to the therapeutic limit. The best solution of arsenic to use, I find, is one part sodium arsenate to 100 parts distilled water. This gives one one-hundredth grain to the drop and permits a ready and convenient dosage within the limit. I begin with three drops—three one-hundredth grains—and increasing it from one to three drops per day and continuing to increase it until the symptoms of arsenic saturation appear; then I diminish the dose. The maximum dose depends on the individual, as some can tolerate a greater amount of the drug than others. Along with this treatment I invariably give Bell & Co's "tonic alterans," beginning with one tablet after each meal and increasing the dose every third day until the patient is taking two tablets three times a day. I find that the patients improve more rapidly when the tonic alterans is given in conjunction with the arsenic than without. When the skin is clear, I stop the hypodermic injection, but continue with the tonic alterans and small doses of arsenic by the mouth for two or three weeks.

The external treatment consists first in a thorough removal of all scales, as the local application should be made direct to the base of eruption, and it is almost impossible for the application to soak through the scales which cover the psoriatic eruption.

This is best accomplished by soaking them in hot water and the free use of green soap or its tincture and a scrubbing brush. Ether is then used to remove the deposits of fat. The drugs best adapted for the external treatment are tar in its various forms, ammoniated mercury, pyrogallol and chrysarobin. One thing bear in mind: The result of whichever drug you may select will be negative until the strength is sufficient to excite a reactive inflammation. We must then rapidly increase the strength of the application until we begin to get the desired results.

Tar is the oldest and most reliable of all our anti-psoriatic remedies and is usually applied in the following manner: The psoriatic patches having been cleared of their epidermis, a thin layer of tar is energetically rubbed in once or twice a day by means of a small brush, after which the patient is dressed in flannels. This is repeated every day. A more energetic effect is produced by the tar bath. The patient in the bath is thoroughly rubbed with soap, and immediately the

spots are painted with tar, and the patient is returned to the water, where he remains from four to six hours, at the end of which time he is dried and then treated with some other drug.

The possible injurious effects of tar should be noticed, as follows: First, local inflammation of the skin, where two adjoining surfaces come in contact with each other. This is prevented by insertion of pledgets of cotton covered with dusting powder. Second, the symptoms of absorption of tar. The patient suffers from fever, nausea, coated tongue, vomiting of tarry black masses, diarrhea and passage of tarry black urine. After from twenty-four to forty-eight hours, perspiration sets in, the symptoms abate, the urine becomes olive green, and the attack is over. After this the patient usually bears the drug very well. Third, the appearance of acne nodules having a black point or hair in the center and are also very painful, which is another bad effect of tar and should be stopped on occurrence of same.

Chrysarobin, in proper form and strength is an effective remedy, but on account of its liability to excite an excessive reaction I very seldom use it. Ammoniated mercury can be used as the official ointment and must be employed for all psoratic affections of the face.

If it becomes necessary, use stronger remedies in this region, but combine with them collodion, so as to form a dry coat over the lesion. If the disease is limited and eruptions are few in number, birch tar may be used in 10 to 20 per cent. solutions, with oil or vaseline. It should be thoroughly rubbed in with a brush after the scales and fat have been removed. The inunction is repeated once daily, gradually increasing the strength until the desired effect is produced. When the eruption is general and large areas are affected, and especially the back, the patient can not take care of himself, and it necessitates the presence of a third person to administer the treatment. Arrangements for the care of the patient having been made, a vigorous treatment of the entire affected integument is at once begun. Of course the remedies should not be given in such concentrated doses as when the disease is localized. I begin with from 2 to 4 per cent. so-

lution of tar and increasing the strength of the application daily until I get the desired effect. The oleum rusci can be increased until the pure oil is used. The chrysarobin is usually effective in from 10 to 20 per cent. solution, but I do not hesitate to go as high as a 40 or 50 per cent. solution is necessary. Whatever drug is used, the first symptom of effective action is the appearance of a erythema in a healthy skin between the lesions. As the erythema deepens, the psoriatic efflorescence fades away, and they become surrounded with distinct whitish zones from two to four lines in breadth. When the healthy skin is erythematous and stained and the psoriatic lesion and areas around them show smooth white spots, the psoriatic lesion is cured. As a general rule, this cure should take place in from three to six weeks, but sometimes cases are more stubborn, and the cure is not effected until after a longer period of time.

When Jacksonian epilepsy has followed an injury in the motor region, the chances of effecting a cure are much better than they are when the epilepsy has followed an injury in the sensory region. When it has followed an injury in the frontal region, operation affords very little hopes of a cure. The earlier the operation the better the prognosis.—Da Costa.

Koplik's spots are pathognomonic of measles, "rubeola." They are bluish-white specks surrounded by a red areola and occur on the buccal membrane at a point corresponding to the line of the molars when the jaws are closed. They occasionally appear before the exanthem.

Westphal's sign is the absence of the knee jerk in tabes. The knee jerk is due to a contraction of the quadriceps femoris, and in health can be elicited by giving a sharp tap upon the patellar tendon. The sign is present, when, from a segmental degeneration of the dorsal column of the cord, or an involvement of the posterior nerve roots, there is a break in the continuity of the peripheral sensory and motor neurons—the reflex arc.

UTERINE ACTION IN DRY LABOR.

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[Read before Ohio State Medical Association.]

I chose this subject for discussion before you today because it has seemed to me that it is one of the neglected subjects in obstetrics.

Authorities, as a rule, content themselves with the assumption that everybody understands all about dry labor; and the various standard texts, with a few notable exceptions, give merely a brief statement that in dry labor, because of the absence of the dilating bag of water, labor is more painful and tedious than normal.

We may accept Wright's definition that "dry labor exists when the membranes rupture and the liquor amnii drains away, before labor, or early in labor." So far as the behavior of the uterus is concerned, absence of, or a very slight amount of liquor amnii, produces an identical condition.

The etiology of dry labor would seem to be simple, but it has been the subject of some controversy. Wright thinks that a large proportion is due to O. P. position. Probably in a large number of cases it is due simply to a weak sac which ruptures. In others a slightly open cervix such as we find in many multipara leaves a portion of the amniotic sac (which normally is supported by the uterine wall, like a balloon in its net) with its most dependent part lacking this normal bracing; and the tension produced by the normal contractions of the uterine muscle, added to the effect of gravity, is sufficient to rupture it.

Indeed doubtless you have all, as I have done, upon examining a multiparous patient, going about for a week or so before labor, with a cervix opened two or three fingers, wondered that the unsupported area of amniotic sac did not always rupture. In still a third class disproportion exists between the presenting part and the pelvic brim. By reason of this the presenting part fails to descend readily into the brim. These cases include mal positions and presentations, such as occiput posterior, face and breech, as well as cases of contracted pelvis, over sized head, etc.

In these cases the mechanism of cervical dilatation is delayed in two ways: (1) because of the failure of the presenting part to engage and make pressure on the cervix; (2) it is well

known that in breech and face presentations the bag of membranes pouches downward in a finger like projection, which fails to make such lateral pressure on the cervix as is normally the case. As a consequence of this delay, the membranes give way as usual, after resisting a reasonable amount of pressure, but the moment of rupture finds cervical dilation only slightly advanced.

Thus a large number of this class come to be rated as dry labor, when really the dry labor is only a complication, resulting from the disturbance of mechanical conditions at the brim. It is an effect, not a cause.

These cases because of the combined condition of dry labor and whatever mechanical condition is preventing engagement, are very difficult to manage, and consequently are frequently seen by the consultant, who thus observes a much larger percentage of such cases than is the true average.

It is only in this way that I can account for Wright's statement of a series of twenty-five dry posterior and required interference, five occiput posterior rotating unaided, and only five primary occiput anterior positions.

My own experience in private and dispensary work certainly does not agree with this. I am positive that a large number of dry labors occur, with normal position, and indeed that many of these cases run such a normal course throughout that they are not recorded except in institutional practice, where a complete record is made of normal as well as of abnormal work.

To illustrate, Mrs. A., twenty-eight years, primipara, pelvis normal, position L. O. A. Membranes ruptured at 6 p. m., one hour before the advent of labor pains. At 7 p. m. regular pains began, and she was delivered at 10:30 p. m., after a labor normal in every other respect. I have numerous similar cases on my records, but it is useless to recite them because they are common experience.

Mrs. G. Seen in consultation with Dr. R. G. Schnee at 2:30 p. m., two para. Her previous labor was uneventful. Pains began at about midnight and membranes ruptured shortly after. Face presentation chin left anterior, mother exhausted, and cervix dilated only two fingers. Delivered by manual dilatation and version. In this case the dry labor was undoubtedly due to the mal presentation, and the combination was responsible for the lack of cervical dilatation.

Mrs. M. Twelve para, Russian Jewess, all children dead but three. Second child lived one

year and died of hydrocephalus. Labor began at 1 A. M. Membranes ruptured after about two hours of pains. Pains continued all night and all the next day, irregular, weak and ineffective. At 10 p. m. examination under anesthesia showed a large hydrocephalic head filling the lower abdomen. Cervix dilated only slightly. Manual dilatation followed by craniotomy. Two to three pints of fluid were evacuated. Delivered by cranioclasia.

Both of these cases serve to illustrate the class which the consultant sees, in which the premature rupture of the membranes is due to mechanical faults at the brim.

Dr. G. L. Brodhead, of New York, who has taken a great deal of interest in dry labor, has kindly given me his experience bearing on this matter. In his statistics he very properly sets in a separate class those cases seen in consultation.

The record is of fifty successive cases of dry labor; seven thrown out because (1) either before the eighth month of pregnancy or (2) seen in consultation and therefore not observed by Dr. Brodhead alone.

Six R. O. A., 3 above brim, 3 in brim.

Nineteen L. O. A., 10 above brim, 7 in brim, 2 in pelvic cavity.

Five R. O. P., 4 above brim, 1 in brim (one of twins.)

O. L. O. P.

Three R. O., 2 above brim, 1 in brim-occiput directly to right.

One breech at vulva (one of twins).

One complex (vortex, cord and foot)—Podalic Version.

One L. M. P.—Spontaneous rotation, normal delivery.

Seven O. A., at vulva when first seen—43 in all.

Of these forty-three cases, twenty-eight were full term, fourteen eight and one-half months, one eight and one-fourth months. Version was used once for prolapsed cord, vertex, foot and cord presenting. Once for uterine inertia with prolapsed cord, position R. O. P. Of the R. O. P. cases, four rotated unaided (two delivered unassisted and two by easy law forceps). Only one of the forty-three cases was a persistent occiput posterior. In this case after a long labor with uterine inertia the cord prolapsed child died, and podalic version was performed. Low forceps was used in thirteen cases, ten primipara and three multipara. These figures show a predominance of normal positions, with comparatively few occiput posterior cases.

MECHANISM.

In normal labor the dilatation of the cervix is accomplished as a result of two great causes.

(1) Physiological preparation of the cervix for dilatation; (2) the mechanical forces actually acting in its dilatation. The first of these is not involved in the present discussion.

As to the mechanics of cervical dilatation, at least three factors are present, acting undoubtedly in a variable degree in different labors. (1) The hydrostatic dilatation by the bag of waters; (2) the contraction and retraction of the longitudinal muscle fibres, obliterating the cervix proper, and fatiguing the bundle of circular fibres located at the internal os. (3) The actual pressure of the presenting part is certainly an active factor in many cases.

The disturbing effect of premature draining away of the waters results first, of course, in the absence of the hydrostatic dilator. When this alone is the result, however, labor may be little disturbed in its course, as illustrated by numerous cases in which dilatation of the cervix goes on uninterruptedly, even when rupture has occurred at the very beginning of labor.

The other, and it seems to me more important factor, is the frequently resulting disturbed action of the longitudinal muscle fibres. When these continue properly to perform their function, provided physiological softening has occurred, dilatation may go on rapidly and perfectly.

If their action also is disturbed, and the pressure of the presenting part alone is present, dilatation is very slow or fails to occur. Nature, it would seem, has provided a sufficient reserve of forces to accomplish the desired end in case one part of the mechanism fails.

The facility, however, with which the cervix frequently dilates in the absence of the bag of waters would seem to show that it is a less important factor than is commonly believed, and that the dilating effect of the longitudinal fibres when acting regularly and steadily has been underestimated. Sotheron mentions this in his article referred to later.

What clinical experience is more common than after rupture of the waters, to see cervical dilatation completely at a standstill, with painful uterine contractions, the patient suffering intensely, uterine contractions irregular and inefficient, and after administration of sedatives, chloral, morphia, or chloroform, to see the dilatation of the cervix again proceed rapidly to completion?

Sotheron in an article in the *Journal of Obstetrics*, August, 1903, very properly considers the uterine muscle fibres divided into circular and longitudinal, as determined by their physiol-

ogical action, rather than by their apparent arrangement in layers. He defines the longitudinal fibres as those upon the contraction of which the uterus is shortened from fundus to mouth, and the circular fibres as those which by contracting diminish the capacity of the uterus in the direction of the transverse diameter.

I regard the recognition of this physiological action of the muscle fibres (as opposed to their anatomical arrangement in layers) as a very important one. It is just as important in studying the action of the uterus to differentiate the fibres physiologically, instead of anatomically, as it is to divide the uterus into an upper segment which contracts, and a lower one which dilates during labor. Another division which depends upon physiological action not on the anatomical division into fundus, body and cervix.

The sphincter or circular fibres of the cervix are formed largely from the inner layer of fibres and are comparatively weak. Sothoron asserts that the circular fibres of the uterus retard rather than aid, distention of the lower segment. This would seem to be true however, only of the sphincter of the cervix which I have stated, belongs to the inner anatomical layer.

The child's spinal column is curved at the beginning of labor, and it has been shown that the distance from the fundus uteri (breech) to the advancing head, is lengthened, not shortened, during a uterine contraction. Thus the presenting part is advanced into the pelvis. This is due to extension of the foetal spine, and this extension or straightening can be due to nothing else than the contraction of the circular fibres of the body of the uterus. Therefore, not only the fibres acting physiologically in a longitudinal direction, but also those acting physiologically as circular fibres do aid in the dilatation of the lower uterine segment by the advancement of the presenting part.

The anatomical basis for this physiological action is found in the arrangement of the fibres of the middle layer, large numbers of which run obliquely through the thickness of the uterine wall, from without inward, and from above spirally downward. A single group of fibres may thus probably by its contraction shorten both longitudinal and transverse diameter of the uterus, at the same time that the thickness of the uterine wall increases.

TREATMENT.

With regard to the treatment of dry labor, men of undoubted ability advise the most widely diverse methods.

Thus Wright, of Toronto, would give seda-

tives in all cases. He advises chloral as soon as pains begin, and choloform to the obstetrical degree when pains become severe. Brodhead would stimulate both before and after the beginning of labor. If membranes rupture before labor, he starts labor as soon as possible. He gives quinine sulphate and strychnine sulphate in good sized doses every two hours. He says the giving of either chloral or opium should be very guarded, on account of the danger of foetal asphyxia, protracted labor, and the constant draining away of liquor amnii during the periods of rest.

It seems to me that in this condition, as in many others, the classical advice to treat the patient rather than the disease holds good. Provided no absolute obstruction is present at the brim I am accustomed to divide these cases into three classes for treatment.

(1) In a considerable number of cases labor progresses normally or very nearly so. Cervical dilatation is not particularly delayed, uterine contractions continue to be regular and effective, and although labor may be somewhat more painful than usual, still the rate and manner of progress is about as usual.

These cases I would give neither stimulants nor sedatives. By their progress they show that nature is still mistress of the situation, that she still holds the balance of power. Interference with this normal balance is certainly unfortunate, and sometimes disastrous.

The remaining classes may well be compared to two individuals of different disposition and nervous make-up, who have undertaken a piece of work and have suddenly found unexpected difficulties in the way of its completion.

The one of sluggish, unambitious nature, when confronted with the unusual difficulty simply quits. He is discouraged and will make no effort. He requires stimulation. The other, ambitious, nervously active, fussy, when confronted with the difficulty, becomes unduly excited. He frets and fumes and fidgets about, wearing himself out but accomplishing nothing. He requires sedatives.

So with these two classes of uteri. The first class after rupture of the membranes, becomes sluggish, and makes very slight if any effort at contraction. This, indeed, occurs normally for a short time after rupture of the waters. In the normal case, however, after a brief period of rest, the uterus resumes its contraction with vigor.

In these cases the normal period of rest is prolonged, uterine contractions are very feeble, lit-

tle or no pain is suffered. Retraction, however, of the uterine muscle appears to continue, because if these cases are allowed to continue a sufficient time, the uterus will be found tightly drawn about the foetus, its walls tense, Bandl's ring developed, and the lower segment thinned. Retraction has occurred without much pain, and with few, if any, contractions.

These cases are dangerous because of the comfort of the patient. I have seen such a patient go for twenty-four hours without a pain and yet at the end of that time found the uterus in imminent danger, of rupture. the patient's pulse and temperature elevated, and she only concerned by the fact that she had had a slight chill.

This case should have been stimulated to the physiological degree, and every effort made to secure efficient uterine action, as soon after rupture of the membranes as possible. Sedatives certainly have no place in the therapeutics of this condition.

The third class is that in which shortly after amniotic rupture, the uterus begins to contract spasmodically, irregularly, oftentimes only in part, and the contractions cause severe pains of which the patient complains most bitterly. Possibly this uterus is an irritable one and that the hard presenting part, and other portions of the foetus, coming into direct contact with the uterine wall unduly excite it. This is the so-called uterine storm. The patient suffers severely and constantly, the period between pains is extremely irregular and short, and vaginal examination shows no progress. Whether cervical dilatation is prevented by inhibition of the longitudinal fibres on account of the intensity of the pain, or whether a spasm of the circular bundle of the cervix is responsible for the delay, it certainly is true that these efforts are most exhausting to the patient.

These cases do well with sedatives. Chloral, morphine, chloroform, often produce a marvelous effect. During the period of comparative rest induced by these drugs, cervical dilatation often proceeds rapidly.

The undue irritability of the uterine muscle being quieted it resumes its work in a regular, systematic and often nearly painless manner.

In giving either sedatives or stimulants to such patients caution should be observed not to over do. What we wish to do with drugs is to restore the balance. The irritable uterus should be quieted only sufficiently to regulate its action, not to stop it. The sluggish uterus should be stimulated only sufficiently to make it resume

work, not enough to make it irritable. For this reason drugs should be given to these patients in small doses and frequently, until the desired effect is produced. The patient should be kept under close observation. These cases require experience and good judgment for their management.

Operative treatment is so large a subject that I have reserved it for a future paper.

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INFANT FEEDING. COMPARISON OF MODERN IDEAS.

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The introduction to Pierre Budin's work starts dramatically as follows: "The life of a newly born infant hangs by such a slender thread that it has less chance of living for a week than a man of ninety, and less chance of living through a year than a man of eighty. However, this may be we owe all the great works and all the great thoughts which have contributed to the world's progress, to individuals who have passed through this perilous stage during which a mere breath might have blown them away.

On December 25, 1642, a widow at Woolsthorpe, in Lincolnshire, whose husband had died a few months after their marriage, gave premature birth to a boy baby. He was so weak that two women sent to fetch a tonic to revive him, did not expect to find him alive on their return. He was so small that he could have been put into a quart mug. So in after years his mother told him. When he grew to manhood, he saw an apple fall from a tree in the Woolsthorpe garden; he pondered over the matter; by and by he propounded the law of gravitation. Sir Isaac New-

ton was rescued from his infant danger by his mother's love. Who can tell how many an undeveloped philosopher has perished from lack of an intelligent mother's care?

If, after birth, the child could be as sure of proper nourishment as in its prenatal days, the problem would be practically solved. The gastrointestinal tract is certainly responsible for three-fourths of the troubles of infancy and early childhood and it is to this feature that we usually look first when called to a case. With so much importance then, placed upon the digestive apparatus, we can see that the proper feeding of the child should occupy the *first place* in building up our bulwark against disease; and second only to this comes hygienic conditions which, of course, include clean, healthy surroundings, plenty of fresh air, sunshine, etc.

It may not be amiss to mention briefly some of the conditions which depend upon the proper or improper feeding of infants. There are such diseases as acute inanition, usually caused by a too sudden change in feeding, with the terrible result that the parents may be deprived of their child within three or four days; as malnutrition, which occurs somewhat later, is more chronic, and is associated with a nervous heredity which condition is *not* confined to the children of the poor; as marasmus, a condition of starvation in which the child presents the pitiful spectacle of a little, old man of skin and bones, with pinched face. This last condition is especially dependent upon filthy surroundings and the ignorance of the parents, and is mostly seen in the wretchedly poor. Added to this list are the well known diseases of scurvy and rickets which are due entirely to errors in diet. Then come all the forms of acute and chronic gastric and intestinal indigestion with associated dysentery, and last, but far from least, the summer diarrhoea which in its most severe form is called cholera infantum. These are caused wholly or at least in part by dietary errors.

Diarrhoeal diseases, especially the so-called summer diarrhoea, deserve special mention, as one French authority estimates that in his country almost one-half the infantile mortality has been due to diarrhoeal diseases, and we have no reason to believe that this plague has been less severe in our own country. In fact, according to our statistics, it is much worse. In New York City, during the five years from 1900 to 1904 inclusive, the deaths from diarrhoeal diseases in children under two years numbered 26,563 as opposed to 23,330 in children of all ages who died from measles, scarlet fever, whooping cough, typhoid and diphtheria combined.

If anything had swept from the earth yearly as many "grown-ups" as neglect and ignorance have our young infants, we would have become terrified and striven for national legislation. The hot month of July is the time when the infants suffer most from this intestinal complaint which is caused principally by the deleterious action of heat upon the milk. Obviously, attention directed toward improving a city's milk supply and instilling into the mother's heads ideas of cleanliness, heating or boiling of the milk and when possible, keeping it cool, will go far toward solving this problem. We can not say too much in praise of Dr. Samuel Allen, our health officer for the past two years, who has striven to improve an almost impossible dairy situation in our city—a condition which would have made the cows blush had such a thing been possible. A few dairies have become models; some have improved, but the majority are far below what they should be. We are still striving for cleanliness and the abolishment of the so-called slop feeding in our dairies, with how much success you yourselves are aware.

When taking up the subject of artificial feeding it is well to understand that there is *no duplicate* of mother's milk. Dr. Rose's artificial milk is a shining example of one failure along these lines. We simply have to do the best we can with milk from a foreign species. Owing to the spirit of the times embodied in the mad rush to crowd as many social pleasures into the smallest possible space, to lack of desire and what not, there has been a growing tendency for the mothers to give up nursing at the slightest provocation in the beginning or to be compelled to later on because of physical inability. Where there have been no serious complications at birth and the mother's health continues good, she should in every possible way, be encouraged to persist in her attempts to nurse her child until it is really seen that further efforts might jeopardize the health of herself or infant. Where she is successful the results are most happy for all concerned. Even under these circumstances it is well, almost from the first, to give the infant one bottle a day of properly diluted cow's milk, with the idea of providing more freedom to the mother and to forestall any possible emergency in the future.

Where one can be *absolutely sure* of the health conditions, the employment of a wet nurse would seem to be the next best thing to the mother's nursing her own child. The practice is not as popular as formerly, probably because of the better understanding by physicians generally of the

principles of artificial feeding, and, where wet nurses are employed, on account of the underlying suspicion that they may not be entirely dependable.

Before taking up any special system let me briefly refer to some of our preservative methods and aids in feeding. In the summer months, boiling or sterilizing the milk is the only refuge of many of the poor for whom ice is too great a luxury. While in Mexico a couple of years ago I noticed that all milk bought at the railway stations was boiled and by this means could be kept without ice for some time, where such an article was more scarce than opals. Pasteurization or three-fourths boiling, viz., maintaining at a temperature of 155° for twenty to thirty minutes, is sufficient for destroying deleterious germs, but is more difficult for the average person to handle. Boiled or pasteurized milk should be used only as a temporary resort when we can not combat the heat and uncleanness in any other way. The process of boiling causes actual changes in the characteristics of milk, viz., the proteids are coagulated, the ferments destroyed and the salts changed.

Peptonized or partially digested milk *sounds* very ideal, but *practically*, its bitter taste very decidedly limits its use. Condensed milk is useful in the same way that sterilized milk is, that is, because it *is* sterile, but the prolonged use of either may cause scurvy. This is not the view held by some, notably Budin and Schereschensky who think that sterilized milk per se could do no harm. Heating milk destroys the tendency of fat globules to coalesce. This, together with the partial inhibition of the curdling action of the gastric juice upon the casein prevents the formation of large fat containing curds. According to them scurvy could not occur from sterilization unless there was too great a reduction of inorganic salts in the milk, by dilution, or the fat content was too high.

Biedert's Ramogen is practically the same as our condensed milk, except that it has a known percentage of fat, sugar and proteids and by means of home dilutions of water or milk any desired percentage can be obtained. The proprietary foods, all of which contain mostly sugar and low proteids and fat, are valuable, because of their great digestibility, in helping over any emergency, but the prolonged use of any of them would most likely cause rickets.

Cereals, viz., oatmeal, rice and barley gruel should be added to the milk at an early age so as to accommodate the child's digestion to starchy food.

Budin, of Paris, whenever possible, feeds infants after the first three or four weeks, with undiluted cow's milk. Fortunately his example has few followers and even he has to confess that there are many babies who can not take the whole milk. In this country, feeding whole milk is even less desirable than in Europe as the average fat percentage of our milk is higher than there.

Buttermilk feeding has been found valuable in intestinal indigestion and diarrhoeal diseases because of its low fat and, possibly also, on account of the presence of lactic acid. A good formula is:

Buttermilk, 1 quart.

Barley flour, 2 even tablespoonful.

Water, 4 ounces.

Cook slowly, stirring continually, for twenty minutes; then add one tablespoonful of milk sugar.

Another method of feeding which is too well known and prevalent to need much comment is the "hap-hazard method" in which we guess at the strength of our mixtures and trust to the mother's maternal sense and the baby's constitution to come out all right.

The percentage system, the truly American method, is based upon the assumption that the *proteids* are mostly at fault. Pfaundler & Schlossman say that recent biochemical investigations have shown that the proteids of cow's milk are heterologous or foreign for the infant, while the proteids of human milk are homologous or not foreign. Hamburger avers that the proteids of a foreign species act as a poison in the organism.

The Walker-Gordon laboratory was started for the purpose of furnishing to infants, on prescriptions of physicians, milk containing the proper percentages of proteids, fats and sugar which the child should have at that age. They use three solutions—a 22 per cent. cream, a milk from which the fat has been removed, and a 20 per cent. sugar solution—and by combining these three mixtures in different proportions with water, they can get any combination they choose. The milk is left each day in several small sterilized bottles, every one containing the exact amount for one feeding. It is very convenient, but the results in most cases, are not superior to intelligent home modification and the great expense puts it out of the reach of most people. The same results can be obtained at home by the physician's ordering from the dairy a certain percentage of cream, and instructing the mother as to how much cream, milk, sugar and water to use.

Let me refer right here, to what I consider a very common mistake in percentage feeding, namely, the use of "top milk." Almost every paper which I have seen published on the subject says that the upper one-third of bottled milk which has stood for four to five hours is 10 per cent., the upper one-half 7 per cent., and the whole is 4 per cent. This starts the scheme with a mistake, unless we should happen to know the cow from which we get our daily supply. The strength of the milk or cream varies considerably, from 3.25 per cent. in an ordinary herd to 5.50 per cent. in a Jersey or Alderney herd. Whenever practicable the desired percentage of cream should be ordered from the dairy.

The use of lime water is still prevalent. It probably renders the curd a trifle less dense.

The acid cow's milk does not need to be rendered alkaline as human milk is itself faintly acid to delicate tests.

After vainly trying to find something better it seems to me that Holt's Twenty Ounce Mixture, which is more or less familiar to every one, is the most simple for an accurate home modification. A few explanations as to its use may serve as an excuse for referring to it. He uses U10, 7 and 4 per cent. creams for modification during the first four second four and last four months respectively of the first year.

FIRST SERIES OR 10% CREAM.

The undiluted strength is: Fat, 10%; proteids, 3.30%; sugar, 4.30%.

Per cent. of fat=10/20 or one-half the amount of cream used.

Fat : Proteids :: 3 : 1.

Ex.—3 oz. of cream=fat, 1.50%, and proteids, .50%.

Ex.—6 oz. cream=fat, 3%, and proteids, 1%.

SECOND SERIES OR 7% CREAM.

The undiluted strength is: Fat, 7%; proteids, 3.50%; sugar, 4.40%.

Percentage of fat=7/20 or one-third amount of cream used.

Fat : Proteids :: 2 : 1.

Ex.—3 oz. of cream=fat, 1%, and proteids, .50%.

Ex.—5 oz. of cream=fat, 1.66%, and proteids, .83%.

THIRD SERIES OR 4% CREAM OR MILK.

The undiluted strength is: Fat, 4%; proteids, 3.50%; sugar, 4.50%.

Percentage of fat=4/20 or one-fifth amount of cream or milk used.

Fat : Proteids :: 8 : 7.

Ex.—11½ oz. of cream or milk=fat, 2.28%, and proteids, 2%.

Viz., 2.28=⅓ of 11½.

Fat, (2.28) : Proteids, (2) :: 8 : 7.

Now each one of the series is fixed up in a 20 oz. mixture.

Adding 1 oz. of milk sugar in a 20 oz. mixture=5% sugar; or, adding 1 oz. of lime water in a 20 oz. mixture=5% lime water.

The percentage of sugar remains practically constant and can be ignored in the calculations. The rule for sugar percentage, however, for those who care to know is as follows: the percentage of sugar=one-twentieth of the per cent of sugar in the undiluted cream or milk, times the number of ounces of cream or milk used, plus the amount (per cent.) of milk sugar used in the twenty ounce mixture.

If you desire to make up thirty ounces, instead of twenty ounces, add one-half more of each ingredient, viz.: instead of eight ounces cream add twelve ounces, etc., and water q. s. thirty ounces. If forty ounces are desired add twice the quantity of each ingredient, cream, sugar or lime water, and water q. s. forty ounces.

In some cases the giving of pepsin after feedings causes the child to gain in weight when previously it had remained stationary.

In Germany, for some time past, the pediatricians have been ignoring, more or less, the percentage side of the question and have been feeding children by weight, viz.: giving them exactly the amount, no more and no less, which they ought to have for a given weight. I am indebted to the very excellent paper read before the Cincinnati Academy of Medicine early in the winter, by Dr. Frank H. Lamb, for valuable information on the subject.

Experimenters found that by placing animals in specially devised receptacles called calorimeters, viz.: a sort of box which registered the slightest change of temperature within it, they were able to determine how much heat is given off in the process of digesting a given amount of food. In the same way they found how much heat the animal lost in twenty-four hours. Weight feeding is based upon the reasonable assumption that it is only necessary to supply daily the amount of *heat* which is lost. Over-feeding is as bad as under-feeding. Now some articles of food when eaten, produce more heat in the body than others. Different food stuffs have been burned outside the body and their values determined. For the purpose of calculation we must have a unit for measuring heat and we use the chemical term caloric from the Latin calor, meaning heat, viz.: the amount of heat necessary to raise one quart of water one degree centigrade. Therefore, the caloric value of a substance means its value as a heat producer, expressed with reference to this unit.

The application of this to infant feeding is

very simple. We must know the number of these calories which the child should be getting for each pound of its weight and the food value of such familiar articles as milk, sugar and cereals. That is the whole thing.

Knowing that the heat value of
 1 gram of fat=9.3 Cal.
 and 1 gram of carb.=4.1 Cal.
 and 1 gram of prot.=4.1 Cal.

The caloric value of any food can be figured out. For instance,

7% cream=70 in 1000 c. c. or 1 qt.

4.1 carb=41 in 1000 c. c. or 1 qt.

4.1 prot.=41 in 1000 c. c. or 1 qt.

$70 \times 9.3 = 651$

$41 \times 4.1 = 168$

$41 \times 4.1 = 168$

—
 $987 = \text{cal. val. of 1000 c. c. or 1 qt. of 7\% cream.}$

$987 \div 32$ (no. of c. c. in 1 oz.) $= 30 = \text{the cal. val. of 1 oz. of 7\% cream.}$

Therefore, the caloric value of 1 oz. of 10% cream=39.

Caloric value of 1 oz. of 7% cream=30.

Caloric value of 1 oz. of 4% cream=21.

Caloric value of 1 oz. of sugar=120.

Caloric value of 1 oz. of cereal water=3, etc.

It has been figured out (Huebner's figures are the standard, only expressed per kilogram), that the child should get forty-five calories daily for each pound of its weight for the first three months, forty to forty-five calories during the next three months, and from forty to thirty-two calories during the next three months, viz.: a child under three months and weighing ten pounds, should get ten times forty-five or 450 calories daily. This is called its energy quotient.

In ounces a child should receive one-sixth of its weight daily during the first three months, one-seventh the next quarter, one-eighth the third quarter, and one-ninth during the last quarter of the year. This method is quite simple for both mother and physician, as the former is instructed as to the amount of milk, sugar and water to mix up daily for the baby, and to weigh the child once a week.

A child should be started on one part milk and two parts water, reaching half milk and half water by the middle of the second month. No change is made until the fourth month when the food is increased to two parts milk and one part water. No further change is made then until the eighth month when the milk is gradually increased to whole milk by the end of the first year.

Those who advocate calorimetric feeding think it is the *fat* which does all the harm, and the percentage advocates blame the *proteids*.

By the tenth or eleventh month a child should be given daily orange juice, broth and some cereal as well as the milk. Weaning should be accomplished by about the twelfth month. Between the fourteenth and eighteenth months, commence with toast, poached or boiled eggs, scraped beef, *if* most of the teeth are present,—of course, continuing to regard the milk as the principle feature of the diet. During the third and fourth years, tender meats and vegetables are permitted daily. Common sense should be a sufficient teacher from this time on.

In comparing the relative merits of percentage feeding and weight feeding, the very capable article of Dr. Maynard Ladd, in the March Archives of Pediatrics, is of interest. He fed a series of twenty cases on the most accurate percentage methods and found that the infants in almost all cases, showed a uniform gain in weight of from four to eight and one-half ounces weekly. The number of calories ingested had little to do with the weekly gain. For instance, of two infants getting the same number of calories, one may have gained twice as much as the other. Energy quotients, viz.: the number of calories per pound of weight, were equally inconsistent, as in some cases, with exactly the same energy quotient there would be a 40 per cent. gain in weight more in one than in the other.

Unquestionably what will do for one baby may not do at all for another. If one could be absolutely sure if the position so positively held by advocates of calorimetric feeding, namely, that the proteids practically never do harm and that the fats are responsible for that now familiar train of symptoms—fat constipation, vomiting, ammoniacal urine, diarrhoea, curds (viz., fatty acids and soaps) in the stools, anorexia, stationary or decreasing weight, etc., one would be quite willing to dispense with the much more troublesome figuring of percentages and let the proteids take care of themselves.

The action of excess of fat in causing nutritional disturbances operates in two ways:

First, by reason of its action on the alkaline bases of the body. Czerny and Keller think that an excess of fat calls forth an abnormal abstraction of alkaline bases for purposes of saponification in the intestinal canal. An excess of fatty food is not absorbed, but remains in the intestine and is saponified. This is the natural tendency of fats when exposed to the alkaline fluids in the intestine. This calls forth any excessive abstraction of alkaline bases to meet the demand.

The second way in which an excess of fat works nutritional disturbances is in its action when casein is curded by rennet in the stomach. the whey from whole milk contains no casein and less than 1 per cent. fat. Then the curded casein must bring down with it about 75 per cent. of all the butter fat previously present in the milk. The practical application of this is as follows; the richer the milk the greater the percentage of fat will be in the curd formed by gastric digestion. This has a tendency to retard digestion. (Schereschensky.)

What we usually take for curds has been pretty well proven experimentally. to be saponified fat, neutral fat and fatty acids. It has been suggested that occasionally a little coagulated casein finds its way through, but this is of different composition entirely from the other. This reaction has certainly helped us to realize that we *have*, in many cases, been over-feeding children and that the intervals between feedings should not be less than three hours for the first three months and after that four hours.

If we wish to feed percentages we could easily tell if our *fat* or *proteids* were too high by the clinical picture and reduce them when necessary and at the same time calculate the energy quotient when in the slightest doubt. In difficult cases one has to turn in every direction for help. I think it a mistake to rely absolutely upon energy quotients, as an immature infant of four months might not be entitled on that basis, to more than is due an infant of one month. I had a case somewhat like this which made practically no gain at all until it commenced to receive much more than its energy quotient called for. Atrophic infants require a greater energy quotient than the normal child of the same weight. In the little experience which I have had, the babies seemed to thrive on more than their weight and age entitled them.

In a paper recently read by Dr. Joseph Breneman, of Chicago, and courteously loaned to me, he says that a healthy child should get from one to one and one-half ounces of whole milk per pound of weight, during the twenty-four hours. This is merely a guide, but simplifies weight feeding somewhat. He believes that the principle of percentage feeding is wrong as it lays too much stress upon the *percent* of ingredients rather than upon the *amounts*. An abnormal gain in weight may also be an indication of over-feeding. He advocates feeding the

child the proper amount of milk, cereal dilution and sugar, and when in any doubt, *checking* by means of calculating the energy quotient, but *never* calculates the number of calories beforehand.

I think that this is the key to the whole situation as it preserves the individuality of the child, frees one from narrow-mindedly following a cast-iron rule, and is quite simple.

Conclusions:

a. Mother's milk is the best for the infant and nursing should be persisted in until it is proven a failure.

b. The procuring of a wet nurse is the next best course, provided one can be assured of her perfect health.

c. There is no special scheme or system of artificial feeding which will apply to every case.

d. *Both* proteids and fats do harm when not supplied in suitable proportions.

e. In preparing a food mixture for any infant remember the rule about its taking one-sixth of its weight daily for the first three months, one-seventh for the next three, etc., and whether it should be taking one-third milk and two-thirds water (cereal or plain), or vice versa, with the addition of a small amount of milk sugar or Mellin's food. Then for one's own satisfaction, calculate the number of calories which the child should be getting and the number which the mixture actually furnishes and if the child does not flourish, one knows exactly what to do. By these dilutions, of course, the percentage of proteids and fats are both regulated also, but with a comparatively greater reduction in the fats than the proteids. Knowing the percentage of proteid, fat and sugar in the whole milk, one can easily calculate the percentage fed to the child in the dilution.

This paper, of course, lays no claim to originality, but merely attempts in an imperfect way, to point out the strength and the weakness of our knowledge so far (which during the past year has, I think, been more chaotic than ever), with the hope that we may be more able to choose the best.

Romberg's sign is a perturbation of muscular coordination, with the eyes closed and the feet placed close together, the patient sways or may fall to the ground. To this source must be attributed the ataxic gait so characteristic of locomotor ataxia.

The Ohio State Medical Journal

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THE McCORMACK MEETINGS.

The tour of J. N. McCormack through the state during October has proved a great success, and much good may be hoped for as a result of the many splendid meetings he addressed. The itinerary began October 2 at Springfield and closed the 30th at East Liverpool, embracing the following cities: Springfield, Piqua, Ada, Fostoria, Fremont, Marion, Circleville, Portsmouth, Ironton, Jackson, Athens, Marysville, Medina, Newark, Delaware, Wooster, Ashtabula, Elyria, Youngstown, Akron, New Philadelphia and East Liverpool.

The closing meeting at Cincinnati was first appointed for October 31, but the proximity of the election caused a postponement until the middle of November, when a grand rally is being planned.

In these latter days the medical profession has been forced into an attitude of self defense. Healing sects without number have been advertising directly and indirectly to the public for many years, and so persistently that many have been led astray. Christian Science, with its arguments, which read like the discussions of the scholastics of ancient days.

has occupied the center of the stage, presenting a would-be morality play, but in reality only world-old legerdemain and phantasmagoria; osteopathy appears as the strong man and juggler in this vaudeville, while minor parts are taken by the magnetic healers, the chiro-practors, etc., ad nauseam, all uniting, however, in the grand finale of condemnation of the medical profession.

From our point of view, secure in the knowledge of what the science of medicine has accomplished, we oftentimes feel intolerant of any one with any intelligence whatever who has been caught by such claptrap as the "nothingness of all things," or the misplaced vertebrae, or the subtle magnetic healing currents, etc., but we should remember that the average man is but a child when confronted by the unknown and inexplicable. He knows nothing of his anatomy or physiology, and the wildest statements are accepted if made with sufficient emphasis. In seeking to educate the laity, Dr. McCormack is accomplishing a work which will prove of incalculable benefit to the medical profession as well as to the people. What he has done in Ohio,

however, is but a beginning; he has merely blazed the way for us, and if we would hope for permanent good we must follow up the plans outlined and persistently and patiently educate the public while at the same time we raise the standards of our own profession scientifically, ethically, morally and financially.

Dr. McCormack is peculiarly adapted to the task he is pursuing. His addresses are plain and straightforward, but eloquent. He holds his audiences on the qui vive for two hours, and the subsequent discussion shows how deep impressions he makes.

His talks to the medical profession have proven in many instances veritable inspirations, being great incentives to self improvement and better organization.

We feel that we all owe a debt of gratitude to Dr. McCormack for his valuable services and congratulate ourselves on having him with us for this all too short a time. It is now, to speak colloquially, "up to us" to follow up the great opportunities he has opened for us.

AN EXCELLENT PLAN.

The following letter was sent by the Summit County Society to the various candidates for legislature for the purpose of obtaining a statement as to their position on questions affecting the medical profession. Their answers were presented to the Society in good time to permit the members to be fully informed as to the attitude of the candidates, and to govern themselves accordingly.

Akron, Ohio, Oct. 12, 1908.

Dear Sir: During the last few years, at sessions of the General Assembly, various bills have been introduced whose object was to exempt from the general medical registration act certain classes of non-medical healers. Among the most important were the Christian Science Bill and Non-Medical Healing Bill. Other at-

tempts have been made to lower the standard of the medical profession in this State.

The medical profession does not insist that methods of treating shall be prescribed by law, or that anyone shall be prevented from obtaining such treatment as the patient or his family may desire, but does insist that whoever may be authorized to treat disease in any manner shall be required by law to pass such an examination as will give evidence that such applicant has sufficient knowledge of the fundamental branches of medical science, e. g., anatomy and physiology and of diagnosis to safeguard the public, especially from epidemic infectious diseases growing out of cases under his charge.

Physicians are interested in maintaining a high standard in their profession, and to this end are interested in legislation of the character mentioned. We approve of all legislative measures which will tend to improve health and sanitation, e. g., Pure Food and Drug Act, Pure Milk Bill, Hospitals for Tuberculosis, etc., and look with great disfavor upon legislation detrimental to either or which will tend to lower the present high standard of the medical profession.

We should be pleased to have an expression from you, by October 17th, of your views upon the foregoing matters. Every licensed physician in Summit County will be informed as to your attitude toward these questions.

Yours respectfully,

J. A. Hulse,

A. F. Sippy,

C. E. Held,

Special Committee.

It is regretted that this letter could not have been published in our last number so as to allow of other counties following this excellent idea of this very wideawake society. While therefore too late to be generally employed, let us make a note of it for further use.

PUT FORMALDEHYDE IN MILK.

State Dairy and Food Commissioner Renick Dunlap on October 13 filed ten affidavits with Mayor Porter, of Steubenville, against ten different dairymen of

Steubenville, charging them with putting formaldehyde in milk. The cases are the first of the kind discovered in the State in more than a year.

Assistant Commissioner William Martin went to Steubenville a week or ten days ago and took ten samples of milk, which he sent to the State chemist. The chemist found formaldehyde in every one of them. The find created considerable surprise about the department, because it has been so long since any milk has been found containing this preservative that it was thought the custom of using it had just about been broken up.—Columbus Dispatch.

The above shows the necessity of eternal vigilance if we would guard against this vicious practice. It is not enough to expose such an evil, or to show the dangers which follow it.

The medical profession has been accused time and again of exaggeration in depicting the depths of depravity to which the commercial spirit leads some men, but we feel that nothing that has been said up to the present will quite do justice to this occasion. When the use of formaldehyde was first introduced as a milk preservative some years ago there was some excuse for the ignorance of the dairymen. Since then, however, they have been freely informed and warned; they have been told how serious results may follow its use in feeding babies, and therefore such a flagrant disregard of the health and perhaps even the lives of many little ones should receive the treatment it so richly merits. It is sincerely to be hoped that these offenders will be so severely punished as to be made an example throughout the State. We hope that Jefferson County Medical Society will watch the outcome of these charges very closely and lend its influence to the conviction and punishment of the offenders.

Let the rest of the State take warning, and take nothing for granted in such an important matter. The following simple

test for formaldehyde in milk is quite delicate and yet so easily carried out, that any physician may quietly examine the milk supplied to his patients from time to time. If any suspicious reaction occurs send a certified sample to the State Board for official examination, and then if confirmed, follow up the case ruthlessly.

Test.

Introduce a little of the suspected milk into a test-tube. Add an equal bulk of water and then allow a little strong sulphuric acid (containing a trace of ferric chloride) to run down the inside of the tube. Allow to stand a few minutes. If formalin be present a beautiful violet ring forms at the junction of the strong sulphuric acid and the diluted milk. In the absence of formalin a greenish yellow tinge is observed. The reaction if positive should occur within two minutes.

The acid used in the above test may be conveniently prepared by adding a small crystal of ferric chloride to ordinary strong oil of vitriol. The acid must be poured in a slow stream down the inside of the test-tube. Delicacy of test, 1 part of formalin in 200,000 parts of milk.

EDITORIAL NOTES

WOMAN'S RIGHTS WITHOUT MEN'S DUTIES.

In a symposium on women in the *Business World* at the American Academy of Medicineamon, a half dozen papers, all good, was one especially readable by Dr. Otto Juettner, of Cincinnati, published in the October number of *The Bulletin of the American Academy of Medicine*. The doctor, among many good things, says: Even at the risk of being suspected of being an unpatriotic iconoclast I call attention to one fact which is admitted on all sides except by those mostly concerned. The curious workshop of women in this country is a form of national hysteria that made us the laughing stock of the world. I will cheerfully grant that American women unite the best elements of woman's character to be found anywhere on earth, the domestic traits of the German, the horse sense of the Englishwomen, the chic of the Parisienne, the cleverness of the Austrian, the fiery temperament of the women of Spain, and the physical charms of the maidens of Italy. This fact should lift the American man to a correspondingly high level of manhood. Woman

is man's equal in her sphere, but not in his. Equality is a distinctively relative concept. Schopenhauer informed us many years ago that "logic was not included in the feminine mind." It is not surprising therefore that the (female) champions of woman's rights have never said very much though they have talked a great deal.

Every argument in favor of woman's so-called rights is necessarily a vicious circle or a generalization from limited premises. *Exceptio probat regulam*. The agitatrix in petticoats pleads for equal rights. She wishes to place men and women on the same level. In reality she demands for women the rights and prerogatives of men without being willing to sacrifice the rights and prerogatives of women or to assume the full duties and responsibilities of men. Therein lies the injustice and most palpable error in the argument. All rights and no duties is the battle cry. They want men's places and men's rights, and at the same time they glare at the rude men who do not give up their seats in the car or doff their hats in the elevator. The agitation in favor of woman's "rights" is in reality a movement to dethrone her who is by nature a queen. A truly good, womanly woman is the one adorable thing in all the world. As a woman she is a living textbook of moral education for men. As a wife she dignifies and makes human and holy what man shares with the brute. As a mother she reigns supreme, for "the hand that rocks the cradle wields the destinies of generations and ages." I wish to say and make the statement with all possible emphasis that if at any time in the history of mankind men fell short of the ideals of humanity, the fault lay primarily with the women. Napoleon once remarked that the women, especially the mothers of the nation, are the makers of its history. The tendency of some women to be the equals of man, to claim his rights, without, however, being able to or willing to assume his duties, has been more strongly marked in this country than any other. It is largely the attitude of men towards women in this country, a differential and slavish submission, erroneously called chivalry. E. S. McK.

A PLEA FOR MORE STRINGENT LAWS REGULATING THE LICENSURE OF MIDWIVES.

Recent agitation against many abuses of midwives, and especially the unscrupulousness of a physician-promoter of Cleveland, advertising in daily papers and circulars to teach midwifery either by mail or in person for a given fee (\$60-80), indicate more clearly than all comments how defective, how inadequate our stat-

utory requirements are as to the licensure of this rapidly growing body of semi-nurses. The statutes of our "Medical Act," as applying to midwives, reads as follows: "All persons desiring, after the passage of this act, to enter on the practice of midwifery in this state, shall appear before the board and submit to such examination in midwifery as the board may require. If the applicant passes a satisfactory examination the board shall, on the payment of a fee of \$10 issue its certificate to that effect which shall entitle the owner and holder thereof to practice midwifery in this state.

It is obvious from this, that everything centers on the examination qualification as a requirement for license, any woman, regardless of moral character or practical training, may be and is admitted to the examination conducted by our State Board, and can obtain a license to minister to women in the most critical period of their lives.

No doubt the framers of our "Medical Practice Act" overlooked or did not realize the importance of this subject, at least it seems not, indicated by the few existing statutes, and yet twelve years ago at the time of their enactment they were in the line of actual progress. Since that time, however, our foreign population, the one mostly employing midwives, has enormously increased and with this the demand for their services has kept pace. In response to this demand rather than to any fitness the supply is rapidly increasing, which is well taken care of by the constant flux of new arrivals who, being in possession of some sort of a credential, are thus more or less qualified to be admitted to the examination. Under these circumstances, any effort of creating a horde of incompetents by the methods referred to above should be defeated and exposed, for it is just as bad as that of our former "Diploma Mills." And to this end I plead for a more progressive legislation which shall prove of equal value at all times and under all circumstances, and be in harmony with the rest of our "Medical Practice Statutes."

But besides all this, there is another phase of this subject requiring our consideration. In the criminal history of the respective countries where they emigrated from, many of our registered midwives have figured as the leading spirits, and yet we are powerless to check them from being admitted to the examination, the only safeguard requisite to practicing and supplanting the physician. [The supplanting of the physician is but a concealed way of practicing medicine, which prevails to a large extent and is not within reach of control.] The elaborate

regulations in force on the continent for the control and supervision of midwives find no parallel in the United States as the employment of midwives by native born mothers is contrary to public opinion—a national distinction and superiority; this, however, does not imply a releasing from the obligations of making more efficient provisions than we have for the protection of those thousands and thousands of women of foreign birth, who, because incapable of judging their own interests or for reasons of economy or for many other reasons irrelevant to the argument, do employ midwives.

It is with this end in view that appeal is made to the leaders of medical opinion and especially to the State Board on behalf of thousands of parturient women and unborn children for protection more ample and far-reaching than exists at present. In conclusion, the following propositions are offered:

1. A statutory requirement for admission to the licensing examination, to consist of

- (a) An evidence of a practical as well as a theoretical training.

- (b) A clean bill of health and morals.

2. Every case of sore eyes in the new-born be reported to the proper authorities and immediately put into the care of a competent physician. It has taken a long time and hard work to make our laws controlling the admission to the practice of medicine as good and as general as they are now, but their efficiency, we are sorry to say, is greatly invalidated by the damaging exceptions which they permit in an integral part of the practice of medicine.

PUBLIC HEALTH AND HOSPITAL EXHIBITS.

One of the chief benefits of a great exposition where the handiwork of man is shown in all its many phases, is in the educating of the masses on subjects of which the vast majority of the people are either ignorant or at the best but poorly informed. The progress of medicine and medical science, the great discoveries of the men who devote their lives to research and investigation, the value to the human race of the proper observances of the laws of sanitary science and hygiene are all matters of which the public is vitally interested and is willing to be informed when the opportunity presents itself.

The authorities of the United States government propose to do much toward educating the public, showing modern appliances and methods of treatment, and illustrating the value of sanitary laws and practical hygiene at the Alaska-

Yukon-Pacific Exposition which will be held in Seattle in 1909. One of the features of the exhibit of the treasury department in the government building will be that of the Public Health and the Marine Hospital Service. The exhibit will be arranged for giving the greatest amount of information in the simplest and most thorough manner. Demonstrations of great value for the layman's knowledge will be held. In its report to the officers of the exposition, the department outlines its exhibits as follows:

"The surgical section will consist of a model operating room, having in the center wax figures showing a surgical operation in progress. Around the side of the room will be placed steam sterilizers for dressings, water sterilizers, irrigating stands, an instrument case containing a full surgical armamentarium, glass topped bottles, glass basins, and all the other appurtenances of a fully equipped operating room.

"The laboratory section is to contain various apparatus constantly used in the hygienic laboratory in the solution of public health problems. This includes laboratory glassware, sterilizers, thermostats, embedding apparatus, microscopes, microphotographic apparatus, etc. Petri dishes containing cultures of bacteria isolated from contaminated vaccine virus will be shown. A traveling laboratory is included in this section, two such outfits being constantly held in readiness by the service for field work or for use in the event of outbreaks of epidemic diseases in various parts of the country. In addition there is to be a very complete helminthological collection. This collection is of great value in view of the increasing attention given to parasites in relation to diseases of man. A macrograph is used to enlarge microphotographs of various pathogenic bacteria, annual parasites and other specimens related to disease.

"The hospital section will comprise a record room and model ward. The record room contains various service publications, a hospital library, clinical histories with their method of filing, and filing cases for microscopic slides. The model ward is equipped with modern hospital beds, invalid chairs, bedside stands, a wheeled stretcher, litters, a portable bath tub and stretcher, medicine cases, a case of surgical dressings, etc.

"The tuberculosis exhibit is to consist of a model of the Marine Hospital Sanatorium, located at Fort Stanton, N. M. This, together with views of the buildings and surrounding country, is shown to emphasize the advantage of light and air in the treatment of tuberculosis.

"The quarantine section includes a model of

a detention camp intended for use in time of epidemic, also models of the quarantine stations at Delaware Breakwater and Reedy Island, and a model of disinfecting machinery used at the latter station.

"The X-ray section will be installed in a room constructed for the purpose. Two modern coils are to be shown, including X-ray tubes and flourosopes, also a high frequency apparatus and the various accessories, which naturally form a part of such an exhibit. In addition, there are to be shown numerous photographs to illustrate the uses to which this apparatus is used at the different hospitals of the service."

FITTING ACTION OF THE ACADEMY OF MEDICINE OF CINCINNATI IN MEMORARY OF JOSEPH EICHBERG.

The merger of the two medical schools under the government of the University of Cincinnati, marks a new era in medical education in this city. It is well for the people to remember that Cincinnati has had a medical college from 1819 to the present day, and that no local medical school has ever had any endowment. The financial burdens have consequently been borne by the medical profession alone.

To meet the increasing demands of present day medical education, to insure the proper training of its students, our University medical school must have the people's support.

The board of directors of the university is fully alive to this necessity, and has recently provided funds to place one of the chairs, that of pathology, on a salaried basis, so that its occupant may devote his entire time and energy to scientific research and training.

It is absolutely necessary that at least three other professorships be similarly provided for. Of these the most important is the professorship of physiology.

Through a most unfortunate accident Cincinnati has recently lost one of its foremost medical men. Dr. Joseph Eichberg was a man who had profoundly impressed the profession by his earnestness and fidelity, as well as by his unusual ability as teacher and practitioner.

To perpetuate his memory in a manner worthy of the man and his work, the physicians of Cincinnati, acting through the Academy of Medicine, has resolved to raise funds to properly endow a Joseph Eichberg professorship of physiology, in the University of Cincinnati.

To this end, a committee of physicians has been appointed to solicit subscriptions for the endowment of such a chair. This committee

hereby appeals to all, who may be interested to subscribe to this fund.

It is the intention of the committee to raise an endowment of \$100,000, the income of which is to be applied by the board of directors of the university, toward the maintenance of this chair.

Mr. Louis Kuhn, of S. Kuhn & Sons, bankers, has kindly consented to act as treasurer.

The committee is as follows: N. P. Danbridge, M. D., chairman; C. R. Holmes, M. D., S. P. Kramer, M. D., E. W. Mitchell, M. D., Max Koehler, M. D., Alfred Friedlander, M. D., secretary.

We would strongly urge upon the County Secretaries the importance of greater care in the keeping of their records of membership and reporting the same. We are in frequent receipt of complaints because of the fact that members here and there over the State do not receive the Journal, or that they are not credited with good standing in the State Society, or in the American Medical Association. In many instances it is found on investigation that the fault is due to the non-payment of dues, entirely or at least to tardiness in doing the same.

The Constitution and By-Laws require the payment of dues and reports of good standing by April 1st each year. While members are accredited and placed on the mailing list of the Journal if paying subsequently, there is always more opportunity for mistakes to occur when the names come straggling in.

On the other hand, County Secretaries should exercise greater care in keeping their records clear and reporting promptly. For two successive years one county has reported inaccurately, the list of names of members, and the money sent not corresponding. Last year it was never straightened out; we still have hopes of clearing it up this year—being of a sanguine temperament.

Within a short time five County Secretaries have sent us requests for a list of their members as their lists have been mislaid, lost, or confused. We must depend on the county organizations for our data, and therefore we urge greater care to help us avoid unnecessary errors.

As Dr. McCormack's tour progressed requests for extra meetings came pouring in from all over the State. As many as possible were arranged for, but several had to be declined on account of inability to secure any more open dates.

Letters to the Secretary from places where meetings have been held all bear the same refrain of tremendously successful meetings, enthusiastic

and delighted audiences, aroused County Societies; and pleasure at the opportunity of meeting and hearing Dr. McCormack.

Ohio must unite with the other states in appreciation of the great work of the A. M. A. in sending a man of such genial yet forceful personality, combined with so much magnetism and eloquence on such a self-sacrificing and difficult mission.

OUR NEXT MEETING.

The 1909 meeting of the State Association will be held in Cincinnati on the fourth, fifth and sixth of May, and a great effort will be made to have this the best meeting in the history of the Association.

Preparations are already under way by the various sections and from present indications it seems very probable that all the available space will be filled long before the time set for closing the programs.

Last year considerable confusion resulted from the fact that essayists were very late in sending in their titles. This year the rule requiring the

sending of titles thirty days before the meeting will be rigidly adhered to, therefore make early application to be sure of obtaining a place.

The following is the list of officers of the sections, to whom all communications in regard to the program should be sent:

General Session: The State Secretary, 186 East State street, Columbus.

Medical Section: Chairman, C. F. Hoover, M. D., Rose Bldg., Cleveland; Secretary, John Dudley Dunham, M. D., 185 East State street, Columbus.

Surgical Section: Chairman, Martin Stamm, M. D., Fremont; Secretary, W. A. Ewing, M. D., Dayton.

Section on Eye, Ear, Nose and Throat: Chairman, J. W. Murphy, M. D., Cincinnati; Secretary, Wade Thrasher, M. D., The Groton, Cincinnati.

Section on Dermatology, Proctology and Genito-Urinary Surgery: Chairman, W. I. Le Fevre, M. D., The Lennox, Cleveland; Secretary, C. M. Harpster, M. D., 701 Madison avenue, Toledo.

Section on Obstetrics and Pediatrics: Chairman, J. J. Thomas, M. D., Euclid Avenue, Cleveland; Secretary, Geo. Schaeffer, M. D., The Lexington, Columbus.

MEDICAL ECONOMICS

REPORT OF DEATHS.

The proper certification of death requires a knowledge of vital statistics and their import. Certain definite ends are to be attained. Knowledge of disease and its presence in certain localities or in endemic, epidemic, or pandemic form or as affecting certain classes and nationalities, cannot be learned only from correct mortuary reports. Diseases in relation to climate or topographic influences, etc., can be studied only with the aid of mortality reports. Along this line one will see the importance of correct information in death certificates. In the light of scientific terms, debility, exhaustion, dropsy, inanition, heart failure, and tumor are of no value and will not be accepted by the registrar. Uremia or hemorrhage is not the cause of death. Deaths by violence should be classified as accidental, homicidal or suicidal. More than one cause may operate to cause death. Measles or whooping cough may act as primary causes and pneumonia or other associate diseases act as contributory causes. Neither symptoms nor associate diseases should be assigned as primary causes.

Many meaningless and worthless terms are assigned as causes of death. One only repeats the question, what was the cause of death? The same is true of albuminuria, anemia, collapse, brain fever, child birth, cardiac asthma, convulsions, stomach trouble, dyspepsia, shock and ma-

lignant disease and many other terms. Under the operations of the vital statistics act, state authority will insist upon scientific exactness in the certification of death.

VISITING SICK FRIENDS.

The doctor's privilege to visit a sick friend under the care of another physician, like all ethical rules is born of common sense. Here the doctor should conform to the rules of the sick room. He should not visit his sick friend unless the privilege is extended to others. He should make inquiry of the attending physician or a member of the family, as to whether the patient is permitted to see visitors. Having gained entrance to the sick room, under proper conditions, the doctor must lay aside things professional and attend strictly to social and friendly interests. To discuss the disease or to offer an opinion, as to diagnosis, treatment, etc., would be unethical and ungentlemanly.

It is observed that physicians, as a rule, do not make social visits upon their friends, sick or well, as they should, nor do they visit each other as they should, especially in sickness. The claim of being too busy is ungracious. A note of kindly regards or a few flowers are always appropriate. When a personal visit is allowable direct attention away from the sickness to pleasant experiences and past enjoyment and pros-

pects of speedy return to health. Physicians know and appreciate the worth of happy suggestions, hence the value of a timely note book, flowers or telephone message of good cheer, an act of kindness in times of sickness or reverses is a boon to the afflicted.

MEDICAL ECONOMICS.

The State Association has not provided a section on public health hygiene for its annual meetings. Every department of medicine and surgery is represented. The neglect of public health and medical economics as an important part of organization work is not consistent with the policy of the profession to advance state medicine and to reinforce professional standards in relation to medical practice regulation and the public health administration. Work within the profession should correspond to its claims to promote the public weal by the application of preventive medicine. It is the business of medical men, from their special training, to point the way of disease prevention. When it is considered that this is an essential part of organization work, altruistic duty to the people, will aid in that work. The relation between medicine and the public is such as to court co-operation. The highest interest of both must come from joint efforts and mutual support. Outside of such relations the medical profession enters the ranks of ordinary avocations. To promote mutual interests of the general and medical public, let there be established a section in public health and medical economics.

The theory of germ disease has been established. Metchnikoff and others now teach the germ theory of health. This principle is illustrated by an insect eating bird that destroys the potato bug, and the lady bug that kills the San Jose scale, a small insect so destructive to plant life. A like warfare between contending armies of micro-organisms takes place in the filtering galleries of sewage of purification plants, in which the germs of putrefaction are destroyed by another kind of germ.

The germ theory of life presented by Metchnikoff teaches that the germs of lactic acid fermentation in sour milk when taken into the alimentary canal destroy the germs of putrefaction so abundant in the large intestine of old people. This thing of chasing one colony of bugs with another, and one class of germs with

another is nature's sporting ground and means of preserving both plant and human life.

Injuries and death from avoidable accidents in the industrial world are a charge upon corporation authority. Last year the railroads, alone, in the United States, caused more than one hundred thousand injuries and seven thousand deaths. Economy in the manufacture of steel rails is responsible for much of this reckless traffic in human life. Mining and manufacturing add their quota of preventable casualties. The automobile has entered the race of death. Accidents will happen, many of which are preventable. The remedy is greater individual precaution and the strict enforcement of protective laws.

Apropos to the pending of the optometry bill, an instance is foreshadowed from Cleveland indicating the compromising alliance between the professional status provided for the opticians in the bill and the trade interests inseparably associated with their work and ambition. The announcement is a complete line of drugs, medicines, optical goods and drug sundries.

A physician directed a note to this drug optical house, "closing all business relations," and adding: "It is bad enough that department stores maintain quack optical departments, to the frequent detriment of human eyes. Drug stores, at least, have no excuse for entering this field."

The optometry bill would give legal recognition and professional standing to this sort of imposition upon the public confidence; it would establish false relations with medical standards and false assurance with the public. Without stultifying itself, the state cannot establish two standards in the same branch of medicine. This bill puts a fullfledged physician with years of preparatory and scientific study and final qualification before the State Medical Board against a tradesman with six weeks of special study. In the nature of optical defects and diseases, often an expression of constitutional disturbances, the state cannot in fairness to the profession and in the interest of the laity lower present standards in ophthalmology. Nor will it do so if the legislator is properly instructed. The optometry measure has a standing, of course, but it stands on one leg. The people are now protected from the quack optician and glass-fitter by the activities of the state in maintaining proper standards of medical practice, enforced by a board of its own creation and selection. The state is obliged to protect its own medical interests in courts, public

office, public institutions, military service, etc., by qualifying practitioners. It says to the citizen, "The state has qualified medical men for its own protection, and you are afforded the same protection against charlatanry and incompetency."

The optician, with a liliputian standard, says, "We, too, want to give protection to the public against a still lower order of glass-fitters, not up to our six-weeks-study qualification in this branch of medical practices."

The thin guise of the public-weal claim will not cover the earmarks of selfish purpose to gain professional standing before the public, in alliance with medical men, on a short circuit diploma and a limited license.

Getting back to the Cleveland affair, attention is called to the unethical pharmacist. Complaint is made that he has no excuse for treating the eyes; yet he is consistent with a large number of druggists who do not only treat eyes, but every other organ in the body, together with its cutaneous covering. The indictment should include other offenses. Drug stores in other cities have other offenses. Drug stores in other cities have prescribing not only eyeglasses, but medicines and appliances in accord with their own diagnosis. They exploit their own proprietary remedies. They prescribe for the sick, and they advertise cures for all kinds of diseases. To tell the truth, there are comparatively few ethical pharmacists. The material and ethical interests of the medical profession should be protected from the medical pirates, as exemplified by the Cleveland physician, by "closing all business relations." The worth and dignity of the medical profession endorses the action of its members in the Forest City.

STATE BOARD NEWS

The State Medical Board has received information that some medical students, having preliminary educational requirements less than demanded by the Ohio law, have been induced to attend medical colleges in other states, under the impression that after graduation they can return to, and obtain a license to practice in Ohio under reciprocity. This should be corrected. All medical students who have or who contemplate matriculating in colleges in other states with such impressions should understand that a license from another state is accepted in place of an examination only. The applicant in all other particulars must comply with the laws of Ohio and the rules of this board. The preliminary educational attainments must be the same as required of students of Ohio colleges.

Wintrich's sign is a change in pitch of the percussion note over a vomica when the mouth is opened or closed. A change of posture is occasionally necessary before the sign can be demonstrated.

"Before making a blood count the following important facts are first considered: (1) the age of the patient; (2) the duration of the illness, and (3) the severity of the symptoms."

Hippocratic fingers are the type in chronic pulmonary phthisis. The terminal phalanx becomes clubbed, and the nails incurvated.

The *tache cerebrale* is a vaso-motor phenomenon and has no special diagnostic value.

Contracted pelves and post-partum hemorrhage have no terrors for the osteopath.

Almost every pregnant woman, during the period of gestation, lives in morbid fear and dread of child-birth. To all such I would emphasize this point: Have an osteopath make a thorough examination occasionally during the course of pregnancy, then one careful examination a week or so before the actual labor. This will enable him to know just the condition of the mechanical parts, and how labor will probably progress; also whether the pelvis is contracted and narrow. Then by treatment properly applied to the parts he can produce a relaxation and enable nature to carry on her work unobstructed. Being a skilled anatomist, the osteopath is capable of not only relieving contractions and tensions during the progress of labor, but is able to guide the descent of the presenting parts and adjust the maternal structures in such a way that there is small occasion for anxiety at the delivery. Under this procedure the agony, distress, suffering and probabilities of bruises, lacerations and long drawn out labors are reduced to a minimum.

The skilled osteopathic physician, who is experienced in this kind of practice, is pre-eminently qualified for it by reason of his knowledge of how mechanically to stimulate and inhibit the action of the nerves; because of his ability to relax contracted tissues, remove obstructions to the blood currents, adjust misplaced tissues, both soft and bony and to control pain by removing the pressure causing the pain. His training is such that he is able to make an accurate diagnosis by bi-manual examination and to assist the progress of the engaging part through the birth canal. The ability to control, by mechanical means, hemorrhage from the maternal parts, after the expulsion of the child's body, is no small part of the equipment of an osteopath.—Herald of Osteopathy.

CURRENT MEDICAL LITERATURE

J. E. TUCKERMAN, M. D., Cleveland.

PROFOUND ANEMIA DUE TO BLEEDING
INTERNAL HEMORRHOIDS.

We are inclined to consider hemorrhoids more an inconvenience than a danger. When, however, they cause constant loss of blood the matter becomes serious and the outcome may be fatal. Physicians should give more attention to this subject than they are wont to do. Dr. Murray (Vermont Med. Monthly, Sept. 15, 1908, p. 216, see also *The Proctologist*, Sept., 1908, p. 140), reports six cases of profound secondary anemia due to bleeding hemorrhoids. The cases were as follows:

"The first was one of bleeding hemorrhoids, secondary anemia, delirium, amnesic aphasia and other critical symptoms. A good recovery was the result of the operation.

"The second, one of hemorrhoids and a villous polypus resulting in profound anemia, heart weakness and a general appearance resembling that of malignant disease. This case made a full recovery following operation.

"The third, fourth and fifth cases resulted in profound anemia, weakness, melancholia, and invalidism, all making a good recovery after an operation.

"The sixth case had been long neglected and died as a result of the profound anemia, two days after he was first seen by the author and before the patient consented to an operation. The examination showed: Hemoglobin, ten per cent, and red blood corpuscles, 1,000,000."

Surely surgeons are not justified in delaying operations in these cases (particularly since direct blood transfusion will make any patient who is the subject of anemia from hemorrhages a surgical risk—Ed.). Nor should the physician delay in these cases, but insist on the urgency of operation.

Murray believes that "the primary cause in many cases of secondary anemia can be found, if sought, in the last three feet of the intestinal canal."

SYMPTOMS IN SUPPURATION OF
KIDNEY.

Chute (Boston Med. and Surg. Jour., Sept. 17, 1908, p. 364), reviews forty cases of kidney sup-

puration and finds turbid urine the only constant symptom, and that the cystoscope is the most essential means of making a determination of the condition. He says:

"In summing up, I would call attention to certain facts which it is possible, perhaps even probable, that the tabulation of a larger series of cases might modify somewhat.

"Less than one-half of the patients in this series (42.5%) gave a history of lumbar pain.

"In only a little more than one-fourth (28.5%) could I make out any enlargement of the diseased kidney.

"Tenderness was present in 38.5%.

"Casts, on which some men place much importance, appeared in but 17.5%.

"A very striking thing to me was the fact that 11 of these 40 cases (27.5%) presented neither pain, renal mass, tenderness nor casts.

"From an analysis of these cases it appears that we have in suppurations of the kidney and kidney pelvis but one sign that is always present, that is, a turbid urine. The next most frequent sign, present in 85% of the cases, is a disturbance of micturition; both these symptoms also occur almost constantly in conditions limited to the bladder. There is a considerable proportion of renal suppuration (27.5% in this particular series) in which we get only these two signs.

"This brings me to the points that I wish to emphasize: First, the lack of distinctive symptoms in many renal suppurations; second, the absolute unreliability of negative findings in these cases; last, the tremendous importance of the use of the cystoscope in the study of urinary suppurations."

APOMORPHINE IN DIAGNOSIS OF
BULBAR PARESIS.

Ferreira (*La Presse médicale*, Sept. 14, 1907), reports that a weak or negative response to small injections of apomorphine will indicate bulbar paresis before it is clinically evident. Incipient glasso-labial-laryngeal paralysis may be detected by the degree of nausea and amount of vomiting. If there be no vomiting at all the medulla oblongata is already seriously affected.

ACUTE INSUFFICIENCY OF THE SUPRARENALS.

Laverson (*Archives Internal Medicine*, Aug. 15, 1908, p. 62), reports an interesting case of this condition and reviews literature on the subject of suprarenal insufficiency. The types of this disease he classes thus: (1) Those of sudden onset; (2) the asthenic type; (3) the nervous type; (4) sudden death where nothing but a destructive lesion is found; and (5) cases which occur in hemorrhagic diseases. These types are clinical and often overlap each other, but may serve for classification and further study of the disease. In the asthenic type there is only extreme asthenia followed in a few days by death. The nervous type includes those showing convulsions, coma, delirium, or typhoid states. In instances of convulsions the convulsion might well be the cause of the adrenal lesion. The first type is of particular interest because of its striking similarity to acute pancreatitis. The onset is sudden, "with epigastric pain and tenderness, vomiting, extreme prostration, feebleness and rapidity of pulse, coldness of extremities, lumbar tenderness, and at times diarrhea, and abdominal distention, followed within a few days by death." Laverson believes that "the shock is more profound, the lumbar tenderness more acute, and the epigastric pain and vomiting less pronounced in adrenitis than is usually the case in acute hemorrhagic pancreatitis." He concludes: "When physiology has taught us more of the functions of the suprarenals and when they are subjected to a more rigid routine postmortem examination, and when clinicians pay more attention to the facts already determined, no doubt, acute suprarenal insufficiency will assume a greater clinical importance than in the past."

ABSORPTION OF OINTMENTS.

Sutton (*British Med. Jour.*, May 27, 1908), to determine the absorption time of certain ointment bases incorporated in them aniline dyes and examined portions of the excised skin treated by the ointment thus prepared. The time the application had remained on and the depth of the stain was taken as an index of the rapidity of absorption. His conclusions were: Lard, simple or benzoated, and pure goose grease are the most quickly absorbed. Petrolatum unless applied with friction is poorly absorbed. Lanolin, alone, is slowly absorbed, but mixed with a more fluid oil, as olive, is readily absorbed. The addition of a

small amount of cedar-wood oil considerably increases the rapidity of absorption of an ointment.

THE LAYMAN, THE OCULIST AND THE OPTICIAN.

Most physicians at times meet with the necessity of explaining the difference between the oculist who examines eyes for a fee, and the optician who examines eyes to sell glasses. Some cities are fortunate enough to have capable opticians who confine their attention to the filling of oculists' prescriptions and who consider testing the eyes as beyond their proper field of endeavor. Such opticians should receive the hearty support of all physicians.

An oculist is a physician capable of recognizing diseased conditions as well as being able accurately to refract the eyes, and is one, therefore, who is able to say whether the patient needs glasses, or if not, what he does need. The optician is, too often, one who advertises to examine eyes free, and therefore must needs sell the subject glasses in order to gain his fee. He is rarely capable of judging diseased conditions of the eye, and certainly is not qualified to treat them. Emerson (*Jour. Med. Soc. New Jersey*, Sept., 1908), is entirely right when he concludes an article on the subject of headache and refraction thus: "You owe it to your patients to see that they consult some reputable oculist. The average layman does not know the difference between the reputable physician and the refracting optician."

"Hundreds of patients have said to me, 'Oh, yes; I went to a good eye specialist; I went to Dr. H, Dr. L, Dr. D, or Dr. A,' and when informed that those men were just as much doctors as the barber or the dancing master have shown much surprise, saying, 'They advertise in the papers, and I supposed they were 'reliable.' Why are they permitted to pose as eye doctors?'"

SPASM OF THE ANUS CAUSING CRYING IN AN INFANT.

By Dr. Planchu (*Lyon Médical*; Ref., *Journal de Médecine et de Chirurgie pratiques*). "The author reports the case of an infant, in whom continual, loud and violent crying was caused by spasm of the anus, without any apparent anatomical lesion. The child was quite healthy, but began to cry when about one week old. Careful examination revealed a perfectly normal condition throughout, and the absence of any fissure in the anus was particularly noted. The motions

were normal, and the child throve steadily. Nevertheless, it cried almost continuously day and night, only sleeping in all about two hours a day. Planchu tried everything in vain, including a change of nurse. The convulsed face and spasmodic movements of the limbs pointed to pain, the origin of which had to be found. Weill was called into consultation. At the end of his examination he sought to examine *per rectum*, and was struck by the firmness of the contracted sphincter. He thereupon proceeded to dilate several times, using his little finger for the purpose. Following upon this, the child slept soundly for three hours, then took a meal, and slept again. Crying began again during the night, but was immediately quieted by anal dilatation. This procedure was required once more on the following day, after which the child became quite quiet, slept well, and enjoyed perfect health. Planchu has since, in like manner, dealt successfully with similar cases, and Leclerc recalls, in this connection, the common practice among mothers and nurses of introducing a suppository, or even a piece of soap, through the anus when a child cries. Even if an action of the bowels is not caused the children are very often quieted."—Post Graduate.

THE TREATMENT OF BEDSORES.

R. Teller, Giessen (Muenchener Medizinische Wochenschrift, May 12, 1898). There are cases where decubitus cannot be avoided, especially in paralyzed patients, in marked asthenia, etc. Prophylactically, strict cleanliness, care of the skin, air cushions, water beds, etc., are generally employed. After a bedsore has developed a water bath is used in large hospitals, but is not practicable everywhere. The author keeps the affected skin dry by free use of Lassar's paste. He cleans up the infected necrotic granulations by a small wet dressing of aluminum acetate or hydrogen peroxid and dusts the ulcer with bismuth subgallate. To bring about more rapid healing the wound edges are massaged daily for from two to ten minutes. A warm full bath is given, the patient allowed to rest for an hour or more and then the local massage is applied. Finally the dressing is renewed. Under this treatment the most stubborn bedsores rapidly begin to regress and heal.—Jour. Med. Soc. N. J.

AN INVISIBLE INK.

Some doctors who have been annoyed by the frequent and unauthorized repetition of prescrip-

tions have been inquiring for an ink which will last about as long as a bottle of medicine or a box pills. We select the following from pharmaceutical formulas: Iodin, 0.35; potassium iodid, 0.35; mucil, acacia, 8.00; aqua ad oz., 60.00. Dissolve the potassium iodid in one dram of water, add the iodine, and when it is dissolved add more water and the mucilage. Use the ink on glazed paper. The writing disappears in about four days. Another method is to boil some nut galls in some nitric acid and add to the infusion gum arabic and a little sulphuric acid. However plain the writing may be at first, it will disappear in a few days. The latter formula is found in Practical Druggist.—The Medical Fortnightly.

METHYLEN BLUE FOR FISSURED NIPPLES.

For several years Dr. Dresch, of Aix-les-Thermes, has employed a 3 per cent. solution of methylen blue as a topical application for the cure and prevention of fissure of the nipples. Here is his method of procedure: He cleanses the infant's mouth and the ends of the nipples with a lukewarm 2 per cent. solution of bicarbonate of soda. He then swabs the nipples with the solution of methylen blue. It is known that methylen blue is a mild anesthetic, and that it promotes keratinization, which is a very important point in an organ subjected to constant maceration by saliva and milk. When the nipples are treated as above, the child nurses without the least inconvenience or disgust. Its mouth is smeared with blue, but the urine is not sufficiently altered to color the diaper. Eight or ten days of treatment are sufficient. It is necessary to make the application immediately after nursing, when the nipple is at its maximum of erectility.—Gaz. des Sciences Med. de Bordeaux; Gaz. des Hopitaux.

METHOD OF REMOVING PLUNGER FROM A LUER GLASS HYPODERMIC SYRINGE.

Much annoyance is caused when one attempts to use a glass hypodermic syringe and finds that one failed to wash out the syringe after the last using, that the medicament has recrystallized around the plunger and that no amount of force short of breaking will loosen it.

To overcome this, remove the metal finger rests and carefully drop the syringe into a test-tube two-thirds full of a 20 per cent. solution of glycerin and water. Boil for a minute or two over a spirit lamp; then remove, and, holding in a

towel while still hot, give a firm twist, and the trick is done.—Arthur S. Hill, M. D., Los Angeles.

PERCUSSION VS. OPSONIN.

Heavy percussion of the chest of a patient suffering from pulmonary tuberculosis has been shown to have exactly the same effect on the opsonic curve as an injection of tuberculin. That is to say, heavy percussion may be followed by increased absorption of toxins.—Latham, Canada Lancet.

ERGOT IN ACNE, VARICOSE VEINS AND SLUGGISH VENOUS CIRCULATION.

E. P. Robinson, of New York, after going over the physiological effects of ergot, states his belief that it is of great value in pathological conditions of the blood vessels and is of especial use to the skin specialist. He submits three cases out of several hundred that he has treated by intramuscular injections of ergot, to show its value and method of use. The cases which he has submitted are acne, varicose veins and sluggish venous circulation. The effect of ergot is to tone the muscular coat and so to maintain an even, steady flow of blood. The ergot should be injected deeply into the muscles, preferably in the gluteal region. The author usually gave injections on alternate days.—Med. Record, July 11, 1908.

is carefully considered, and presents considerable new material. The question of blood pressure, and the value of its determination, as well as the proper methods for its determination, is covered in a practical manner.

The article covering dermatology and syphilis is a general resume of these subjects. The portion devoted to the use of the X-ray in the treatment of skin diseases deserves special mention.

The subject of obstetrics is presented in a very practical article, especially the portions devoted to eclampsia, ectopic pregnancy and narcosis.

The article on nervous diseases, by Spiller, is a systematic review of the recent literature of this subject. It gives many points of value in connection with the difficult problem of diagnosis of such diseases.

The book contains much valuable information in a condensed form, and is well worth the time required for its reading.

ANATOMY, DESCRIPTIVE AND SURGICAL, by Henry Gray, F. R. S., Fellow of the Royal College of Surgeons; lecturer on anatomy at St. George's Hospital Medical School, London. Seventeenth edition, thoroughly revised and re-edited, with additions, by John Chalmers Da Costa, M. D., Professor of the Principles of Surgery and of Clinical Surgery at Jefferson Medical College, Philadelphia, and Edward Anthony Spitzka, M. D., Professor of General Anatomy in Jefferson Medical College of Philadelphia. Illustrated with 1149 engravings. Lea & Febiger, Philadelphia and New York, 1908.

BOOK REVIEWS

PROGRESSIVE MEDICINE, Vol. III, September, 1908.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 285 pages, with thirty engravings. Per annum, in four cloth bound volumes, \$9; in paper binding, \$6; carriage paid to any address. Lea & Febiger, publishers, Philadelphia and New York.

Progressive Medicine for September, 1908, presents extensive articles on diseases of the thorax and its viscera, dermatology and syphilis, obstetrics and nervous diseases. All topics are well presented, and give in detail the recent advances in these subjects.

The pages devoted to tuberculosis, especially the discussion of sanatoria and of tuberculin, are very satisfactory. The subject of cardiac disease

The seventeenth edition of the well-known work, made necessary by the early exhaustion of the supply of its predecessor, presents the same excellent qualities found in earlier editions. The work follows the same general make-up of the former editions, but there has been made the necessary changes and additions to bring both text and illustrations strictly up to date.

The sections on histology and embryology present considerable new material and some rearrangement. The nomenclature followed in former editions is retained, but the Latin or international nomenclature is introduced in parenthesis following the English name in current use. This arrangement will aid materially in bringing the Latin method into more general use.

The most important changes and additions are found in the section on the nervous system and which recent advances have all been fully presented. A considerable number of new illustra-

tions have been added, all of which increase the value of the work.

The entire work maintains the same high standard of thoroughness and simplicity which for years past has made Gray's *Anatomy* one of the most popular and best known medical works in the English language.

BORDERLAND STUDIES. Miscellaneous Addresses and Essays Pertaining to Medicine and the Medical Profession, and Their Relation to General Science and Thought. Vol. II. By George M. Gould, M. D., formerly editor of the *Medical News*, the *Philadelphia Medical Journal*, *American Medicine*, etc. P. Blakiston's Sons & Co., Philadelphia.

This is a collection of sketches and essays published separately in various journals, but collected and republished as the second volume to a predecessor brought out in 1896. Many curious and interesting facts are brought out, theories advanced and personal views of the well-known author elaborated.

It is well to remember the breadth of the science of medicine, and a dip into a work of this sort occasionally helps one to appreciate that fact.

THE PRINCIPLES OF PATHOLOGY. Vol. I, General Pathology. By J. George Adami, M. A., M. D., LL. D., F. R. S., Professor of Pathology in McGill University, Montreal. Octavo, 948 pages, with 322 engravings and sixteen plates. Cloth, \$6 net. Lea & Febiger, publishers, Philadelphia and New York, 1908.

The first volume of the long-promised work on pathology by Adami has appeared and is fully up to expectations. This volume, limited to general considerations and basic principles of pathology, follows out a thoroughly logical system which makes it unusually adaptable for students. Recognizing the necessity of a comprehensive knowledge of the normal cell before studying it in disease, the author first considers the cell with its various attributes, its histology, physiology, chemistry, growth, multiplication, differentiation, etc., terminating this section with three excellent chapters on the fascinating but obscure subject of inheritance.

Section II considers the causes of disease, first, ante-natal, the results of inheritance, and intra-

uterine vicissitudes resulting in monstrosities and abnormalities of structure; secondly, the ordinary extrinsic disease producers.

Section III includes the description of the disease processes and results, the general reactions, the local reactions and the tissue changes. Under part one of this section are four excellent chapters on immunity, embracing all the prominent theories current at the present time.

It is impossible to give an adequate idea of the work in the brief space allotted to this review, but suffice it to say that from the points of view of classification, comprehensiveness, clearness of style and scientific value, it is the most satisfactory work on pathology that has appeared in recent years.

THERAPEUTICS: ITS PRINCIPLES AND PRACTICE. By H. C. Wood, M. D., LL. D., Emeritus Professor of Materia Medica and Therapeutics in the University of Pennsylvania, member of the National Academy of Science. Thoroughly revised and rewritten by H. C. Wood, Jr., M. D., Associate professor of Pharmacology in the University of Pennsylvania. Fourteenth edition. J. B. Lippincott, Philadelphia and London.

The appearance of the fourteenth edition of the valuable work is evidence of its recognized value, and the stronghold that it has maintained upon the medical profession. In this edition, as compared with the seventh, which the writer used when a student, there are a great many changes and improvements to be noted. At that time the writer felt that, although it might be valuable as a work of reference to trained practitioners, it was not well adapted for the use of students. The objections, however, cannot hold good of this present edition; in arrangement, classification, and style it is thoroughly available to the student as well as the physician, and will be welcomed by both.

The main facts in large type strike the eye and emphasize the points to be remembered for the student, while the collateral and accessory facts in finer type often appeal strongly to the physician or investigator.

The work has been brought thoroughly up to date, and as it stands appeals to us as the best in its field at the present time.

COUNTY SOCIETIES

FIRST DISTRICT

The Academy of Medicine of Cincinnati held its first regular meeting, after the long hot summer, on September 28, 1908. The Academy received a beautiful letter from Mrs. Joseph Eichberg and a fine picture of the doctor with floral accompaniments, all of which was gratefully accepted. The order of the evening was reports of cases, by Drs. B. Merrill, Ricketts, Ambrose, Johnson and A. J. Thompson. The academy, at its meeting October 5, 1908, listened to a very valuable paper by J. W. Ems, chemist and superintendent of the filtering plant of the new Cincinnati waterworks. He gave a history of the waterworks from the earliest time to the present date. The new waterworks were fully explained in photographic views given. The lecture proved most interesting. E. O. Smith was elected secretary of the academy to fill the vacancy made by Mary K. Isham being appointed on the staff of the Ohio Hospital for the Insane at Columbus.

The Highland County Medical Society met Thursday, October 13, 1908, at 10:30 a. m. in the parlors of the Hotel Parker. Reports of clinical cases were made by Drs. Roberts, Chaney, Gibson, McBride, Russ and others. Dr. L. Nelson read a paper on "The Relation of the Doctor to the Public Schools." G. I. Gardner, of Columbus, read a paper on "The Establishment of a Bureau of Vital Statistics."

The Adams County Medical Society held a meeting Wednesday, October 28, at West Union. The program was as follows: "Diagnosis and Treatment of Pulmonary Tuberculosis," R. Y. Littleton, Rome; "Vital Statistics in Ohio," G. I. Gardiner, Columbus; clinical reports.

The fifth annual meeting of the First Councilor District will meet in Cincinnati, November 16th and 17th. The afternoon of the first day will be devoted to the reading of papers. In the evening Dr. McCormack will address the Society. The second day special clinics will be held at the City and Good Samaritan Hospitals.

SECOND DISTRICT

A very interesting medical meeting was held at the Piqua Club, October 1. About fifty physicians from Darke, Shelby and Miami counties were present. The following program was ren-

dered: "The Alimentary Canal a Factor in the Genesis of Chronic Diseases," Jno. B. Ballinger, Bradford; "Health of Public School Children," S. S. Gabriel, Lockington; "Treatment of Disease," Emmet Keating, Chicago.

"The Alimentary Canal as a Factor in the Genesis of Various Allied Chronic Disease: Lithemia, Neurasthenia, etc.," by J. B. Ballinger, Bradford. The essayist, after speaking of numerous allied diseases which make up a considerable number of cases treated by every general practitioner, such as lithemia, rheumatism, arteriosclerosis, endocarditis, myocarditis, apoplexy, diabetes, chronic nephritis, neuralgia, neurasthenia, hysteria, chorea, migraine, epilepsy, melancholia, some forms of insanity, and a number of gastric intestinal and skin diseases, whose etiology was not well understood, remarked that they had in common so many symptoms referable to the intestinal canal as to warrant a consideration of the alimentary canal as a possible factor in their production. He described the intestinal tract as constantly infected with bacteria from soon after birth with repeated special infections as in enterocolitis, dysentery and typhoid fever; these often lead to chronic infections with resultant conditions, such as constipation, which favor extension of the poisonous products and absorption, giving rise to symptoms which are generally ascribed to lithemia and neurasthenia.

The poisonous substances formed within the bowel are due to putrefaction, and the amount and variety depend upon the numbers and kind of bacteria together with the degree of retention; as mixed infection occurs, various toxic products result, and while the resultant symptoms may be more or less divisible into classes, they are often more or less intermingled. Such types, however, as the lithemic or gouty, the gastro intestinal, nervous and reflex may be recognized.

In the lithemic type it may be conceived that the toxic substances are of the nature of organic acids which by chemical combinations form deposits or cause changes in the fluids and tissues resulting in arthritis, arterial degenerations, endocarditis, kidney and vesical calculi, neuritis and perhaps other conditions not as yet so readily understood. Acute rheumatism may be due to an acid toxæmia from this cause, and it may be that heart clot following anesthesia is due to this same cause.

In the gastro-intestinal type the symptoms are chiefly local from irritation, with disturbance of peristalsis and circulation. Hence colic, flatulency, hyperacidity of the stomach, with the usual symptoms of stomach derangement, especially such often described as functional, may be result, with possible secondary infections of the appendix and gall bladder, mucous colitis with also the various forms of visceroptosis.

In the nervous type symptoms appear similar to the effects of alkaloidal poisons, irritant or convulsive in character. From such toxæmias the symptoms complex of neurasthenia is the most common, though probably also, hysteria, melancholia, some forms of insanity and such convulsive diseases as chorea and epilepsy may arise.

The reflex type includes the neuralgias, parasthesias, vertigo, probably migraine, cardiac palpitation, many local vaso-motor disturbances, sudden attacks of weakness, and many abnormal sensations. In neuralgias, probably two conditions are present; the predisposing toxemia causing an irritable and excited state of nervous system with somewhere a local irritation connected in some way with the affected nerve.

The essayist then described in detail the *modus operandi* in the production of the most common condition mentioned—neurasthenia, and supported his statement by personal observations.

He then deduced the rational treatment of elimination and neutralization. He advised the use of salines followed by intestinal antiseptics and alkalies, with such diet as to minimize fermentation. Naturally, he said, relapses would occur but "eternal vigilance is the price of safety," and exerted along these lines would lead to great results in the prevention of disease and add comfort, happiness and length of life to a large number of the human family.

The program for the second half year of the Greene County Medical Society was as follows: September 10, "Infant Feeding," Dr. Finley. October 1, "Repair of Perineum," B. R. McClellan. November 5, "Acute Affections of the Kidney," (a) Physiology and Pathology, Dr. Humphrey; (b) Treatment, Dr. Marsh.

On December 3 the President will deliver his address.

A McCormack meeting was held in Springfield October 2d. Dr. McCormack addressed the physicians of Clark County in the afternoon, and, though not as many of the local profession were

present as might have been wished, the meeting was very profitable and interesting.

At the public meeting held in the M. E. Church a very good attendance listened attentively to the eloquent remarks of the speaker of the evening. Hon. Keifer presided at the meeting and made remarks in the discussion indicative of the interest aroused. Among the out-of-town physicians in attendance were the President of the State Association, D. R. Silver; Vice-President F. F. Lawrence, Councilor Horace Bonner and the State Secretary.

THIRD DISTRICT

The Hancock County Medical Society met on the evening of October 1, and enjoyed a very enthusiastic session after three months' vacation. J. P. Baker read a very interesting paper on "Eclampsia," which was discussed at length.

Communications from several sources were read. Drs. E. Cooper and H. L. Powell made applications for membership. Committees were appointed to begin preparations for the Northwestern Medical Society, which will meet in Findlay, December 10 and 11, 1908.

A number of the members of the society attended the McCormack meeting at Fostoria.

The following officers were elected at a meeting of the Seneca County Medical Society, held at Tiffin, October 15: President, R. C. Chamberlian, Tiffin; Vice President, C. N. Hatfield, Fostoria; Treasurer, C. W. Willard, Tiffin; Secretary, C. F. Daniel, Tiffin.

C. N. Hatfield read a very interesting and instructive paper on "Some of the More Common Diseases of the Stomach and Their Treatment."

A splendid meeting greeted Dr. J. N. McCormack in Ada, on the 4th of October. The visiting lecturer addressed the local medical profession in the afternoon and stirred up great interest of the plans of self improvement he suggested.

In the evening a large and enthusiastic audience listened to an eloquent and masterly address. The church was crowded to the doors, many stood during the entire meeting and others had to be turned away. A lively discussion followed the lecture and testified to the great interest aroused.

A very successful meeting was held in Fostoria, October 6th, to hear Dr. J. N. McCormack. His address to the physicians was exceedingly in-

teresting and inspiring. His popular lecture was no less so in the evening. His exposition of the work of the medical profession for the public good was a revelation to the laity and will be the foundation for much greater cooperation in health matters in the future.

Dr. J. N. McCormack met with the physicians of Marion County Medical Society on October 8th at the Commercial Club in Marion. After a very pleasant dinner in his honor, Dr. McCormack talked informally of the necessity of many reforms in our professional work, especially in self improvement. His explanation of the result to be obtained by systematic post-graduate study in County Societies awakened great interest.

In the evening he addressed a large and representative audience which heartily manifested its approval and intense interest in his treatment of his subject. After the completion of his remarks many of the prominent citizens present discussed the points raised and advocated the continuance of the work by a local propaganda of education along the lines suggested by Dr. McCormack.

Among the out-of-town guests in attendance were Vice-President F. F. Lawrence and the State Secretary.

FOURTH DISTRICT

The pathological section of the Academy of Medicine of Toledo and Lucas County met October 9. The program was as follows: "The Etiology and Pathology of Rheumatism," H. E. Smead. Dr. Smead reviewed the history of rheumatism and the older theories advanced in explanation of its phenomena. The old ideas as to the relation of lactic and uric acid to rheumatism were considered.

There is little doubt that disease is infectious. "The occasional epidemic prevalence, the variability in type, the incidence upon the young, the occurrence of tonsillitis, endocarditis, pneumonia, erythematia, rapid anemia, tendency to capillary hemorrhage and albuminuria, implication of joints, relapses, the occasional supervention hyperpyrexia, the nervous disturbances, the specific action of salicylic acid, all are suggestive of an infectious disease."

Many micro-organisms have been isolated from the tissues of rheumatic subjects. Triboulet in 1898 produced mitral disease in a rabbit by the injection of diplococcus obtained from the blood of a rheumatic patient. Westphal and Jalkoff, a year later, produced fever and arthritis in eighty rabbits by the injection of a similar

organism, recovered from a fatal case of rheumatism. Payne and Boynton, in 1900, published the results of their investigations of the same organism and were able to demonstrate its presence in all the chief lesions of rheumatism and in the brain and meninges in cases of chorea. In addition to the presence of these organisms they again recovered the organism and reproduced the disease by the injection of pure cultures into rabbits. Dr. Smead, therefore, thinks the infectious nature of rheumatism may be considered as proved.

Heredity is a striking factor in the disease. It is rare under five, but cases occur under one year. Special stress has been laid on the tonsils as portals of entry for the bacteria and tonsillitis often precedes the attack. Removal of tonsils has marked effect on preventing further attacks in predisposed individuals.

The bacterial invasion is general and not merely a toxæmia. The cardiac lesions, pleurisy and arthritis are due to local bacterial deposits. The lesions may take three types.

1. The simple type with rapid destruction of bacilli and prompt recovery.

2. The fibroid type with mitral stenosis.

3. The malignant type with a true rheumatic septicaemia. Fatty degeneration, local necroses occur.

The blood changes are marked. A modern leucocytosis is the rule. During the acute stage, there is a rapid fall in the number of red cells and a severe anaemia follows. Arteritis, phlebitis or thrombosis may occur.

The tendons and tendon sheaths are much damaged. Subcutaneous phenomena are interesting phenomena as they are practically always associated with cardiac disturbance. Their occurrence in this country is said to be less frequent than in Europe.

Geo. B. Booth reported a case of "Fibrinous Bronchitis." A male laborer aged forty-five, having a negative previous history, was taken sick five weeks before but not of sufficient severity to make him stop work. His illness was characterized by attacks of wheezy dyspnoea, cough, the lungs showing numerous rales over both sides. The patient had no rise in temperature. The dyspnoeic attacks would usually occur about 2 a. m. and last two hours. During one of these attacks, he coughed up a complete fibrinous cast of the bronchial tree. This specimen was demonstrated at the meeting by Dr. Booth. The patient was temporarily relieved but dyspnoea recurred with the expectoration of similar, but smaller, pieces of membrane. The patient died several days after coughing up the cast.

A culture on blood serum made from pieces of the membrane and stained by Neisser's method, showed a very few bacilli resembling the Klebs-Loeffler, but the predominating organism was the streptococcus.

W. J. Gillette showed a rare specimen of ectopic gestation, which had gone on to eleven months with untoward symptoms and was then removed by him by abdominal section.

W. Fisher demonstrated a primary fibroid of the ovary.

James Donnelly demonstrated a specimen of torsion of the omentum.

J. H. Jacobson demonstrated a specimen of oesophageal stenosis. This patient was a young married woman who had swallowed lye with suicidal intent. When the patient was first seen, it was impossible to pass the finest bougie, and a gastrostomy was performed in order to nourish the patient. From this opening, the oesophagus was dilated from below, which was done only after considerable difficulty. A few days after the operation, the patient developed a septic temperature with chills, fever, sweats, leucocytosis which lasted five weeks and ended in death. A clinical diagnosis was made of a probable mediastinal abscess, but the autopsy showed a small abscess in the base of the left lung having no connection with the oesophagus.

Louis Smead showed a large enterolith producing intestinal obstruction and removed by him at operation.

Burt Chollett showed a large tuberculous kidney removed at operation and reported the case in full.

Chas. W. Moots showed an adeno-carcinoma of the ovary," removed at operation, and reported the case as follows: A married woman, aged thirty-seven, had distress in pelvis dating back two years. The menses were regular, the abdomen enlarged, and a diagnosis of pregnancy was made and preparations for delivery made. When seen by Dr. Moots the abdomen was enormously and symmetrically enlarged, resembling in appearance a large ovarian cyst. Fluctuation of fluid was distinctly obtained. Vaginal examination showed the pelvic floor hard and fixed. Several hard nodules were palpable in the pelvis, giving the finger a sensation, not unlike that which we would expect were these nodules the elbow or knee joints of a child. The cervix was normal in appearance and touch. The temperature was normal, pulse 120, no heart murmurs, kidneys normal, except slight decrease in amount of urine excreted with rise in specific gravity. Dyspnoea and anorexia were present.

The abdomen was opened under ether anesthesia and four gallons of fluid liberated. Dense adhesions were present all over the peritoneal cavity. An hysterectomy was done with a considerable part of the omentum. The specimen exhibited showed large nodular growths in the ovary, omentum and surrounding tissues: Diagnosis: Papilloma of ovary with adeno-carcinomatous degeneration.

Dr. Dice showed a piece of tin removed from the rectum which had caused an ischio-rectal abscess.

FIFTH DISTRICT

The fifty-third regular meeting of the Lake County Medical Society was held at 8:00 p. m. Monday, October 5, at the Parmly Hotel, Painesville, Ohio. The program was as follows: Reports and presentation of cases; miscellaneous business; J. B. McGee, of Cleveland, presented a paper entitled "Drugs in Cardiac Disease;" discussion.

On October 9, Clemens von Pirquet, assistant to Professor Escherich, director Children's Clinic, University of Vienna, read before the Academy of Medicine of Cleveland, a paper on "Experiences With the Cutaneous Tuberculin Reaction in Children, with Two Hundred Postmortem Examinations." He said in part:

Last year I referred to the first hundred sections which were made on children who had undergone the cutaneous tuberculin proof. Now, the second hundred has been reached. I shall repeat in some words the origin of the cutaneous test. I had found that in vaccination with smallpox only those persons show local symptoms within twenty-four hours, who have formerly been vaccinated. One may, therefore, conclude if an early local reaction is obtained that the person has been previously vaccinated. In applying the method of vaccination to tuberculosis, I proved that in the same way an early reaction on the point or vaccination with Koch's tuberculin proves a previous infection with tuberculosis, and that this cutaneous reaction corresponds to Koch's fever reaction after injection with tuberculin.

The first cases of which I spoke last year were nearly all tuberculinised in that way, that I made one comparison point and two points with 25 per cent. tuberculin. This year all were mostly vaccinated with undiluted old tuberculin. The test was generally made on the right underarm, sometimes on other parts of the body. The place of application is not important.

In several cases besides the cutaneous test also the conjunctival and the dermal application were tried. The application after the method of tuberculin in the eye. (Wolff-Eisner-Calmette.) I have quite given up, because in some cases very disagreeable and lasting irritations were caused, and besides the resistance of the children makes it difficult to apply the solution equally. The conjunctival test with 1 per cent. of old tuberculin is not so sensitive as the cutaneous test with undiluted tuberculin; and it is not correct (as was said by some authors) that the conjunctival phenomenon only appears in persons with an active progressive tuberculosis. The difference between the two reactions is only of quantitative nature. If one applies a higher concentration of tuberculin in the eye, one finds the same percentage of reacting children among the latent tuberculous children as with the cutaneous proof. An absolute difference between active and inactive tuberculosis is very much to be wished for, but till now has not yet been discovered with all the different applications of tuberculin.

In general a newly acquired tuberculosis shows severer reactions, but it is not necessarily said that the process is an active and progressive one. Only one result is absolutely sure, that every positive reaction is caused by an infection with tuberculosis. One can not, however, conclude from a positive reaction that a coexisting bronchitis is necessarily due to tuberculosis.

The dermal reaction, which is produced by the inunction of tuberculin following the method of Moro and Lignieres is not so sensitive as the cutaneous test; in every case it is preferable to the conjunctival application because it is absolutely harmless. It can be applied in cases where the doctor or the patient do not like the method of vaccinating.

For consecutive or daily trials in the hospitals, only the cutaneous test is applicable, because each test requires but a small spot of the skin, and furthermore it allows a quantitative measurement. Recently I performed in many cases daily trials with quantitative measurements in order to have a continuous observation of the reactive power of the body in tuberculous meningitis and in measles.

Besides the above named kinds of application in many of my cases injections of tuberculin were made by Dr. Hamburger. His attention was principally directed to the subcutaneous reaction, Escherich's *stichreaktion*, and he could prove that the subcutaneous reaction is even

more sensitive as the cutaneous one. It is principally found among more grown children without manifest tuberculosis that they react better to the subcutaneous than to the cutaneous proof. Those children generally react a week later also to a cutaneous test. This secondary reaction is due to the increased sensitiveness caused by the first application.

In the majority of cases the reaction was tried not only once but several times. I inspected the sores every twenty-four hours for some days. Each time a note was made of the diameter of the papula also to what degree it raised above the surface if it was distinctly, indistinctly, or not palpable, lastly the color and other signs were noted when the papule was of an unusual type.

Two hundred out of the about 2000 children who had undergone the cutaneous test died and were dissected carefully. The autopsies are to be divided into two classes; 109 cases, in which no tuberculosis was found and eighty-nine cases, in which tuberculosis was found, besides there were only two cases which, at the autopsy, showed an uncertain result, whereas the cutaneous tuberculin test was positive.

In one of these two children, an adhesion of the left lung and enlargements of numerous glands were found. In the second case a pericarditis was found, which had no positive characteristics of tuberculosis.

The remaining 109 cases in which no tuberculosis was found all reacted negatively. Of the eighty-nine cases, which showed tuberculosis in the postmortem, sixty were positive. At the first cutaneous test twenty-nine were negative. Of the latter, six cases showed signs of a positive reaction at the inunction of the test. Four cases of these six showed in the postmortem slight tuberculosis, besides some other fatal diseases, two died of tuberculosis itself.

One of those two cases is very interesting, because this child was from the time of his birth to the time of his death in the babies' ward. Some hours after the child's birth the mother died of consumption, and it is nearly certain that the child was infected from her immediately after birth, because the postmortem showed a tuberculosis of the glands of the throat and the lungs, and especially a cavity in the right apex. This finding speaks more for an infection by respiration than for an intrauterine infection.

For the first seven weeks the child was quite well, then commenced to show symptoms of fever and emaciation and died at the end of three months. The first cutaneous test, thirteen days

before the death, was negative, the second, some weeks before death, positive.

In several cases of the second group, namely that of tuberculous children, the reaction was negative, because the test was made during an attack of measles. As I have already shown in some former papers this not reacting state begins at the same time with the exanthema and lasts for about a week, afterwards a regular reaction reappears, if the measles have not caused a generalization of the tuberculosis. In such cases, only a slight reaction reappears for some days, then fails with the progress of the milder tuberculosis.

Nearly all the remaining cases of tuberculosis which reacted negatively were cases of miliary tuberculosis. In young children, the miliary tuberculosis has not much influence on the reaction, we even found it positive to the last days of life. The more grown the children are the sooner the reaction lessens in the last weeks before death. I have watched in many cases this lessening by daily tests, so that the first proof was positive, a distinctly feelable papule of a fresh color, then the height of the later reactions slowly diminishes. We find "Kachektic" reaction, as I call those, which are abnormal either in height or in color. Sometimes one finds distinctly feelable papules but with no color, and on the other hand, distinctly colored ones which are not elevated. Whereas, normal papules retain their shape and height for some days. Kachektic papules often change in color and height, sometimes it seems as if it disappeared and the next day or in some hours, it is there again.

From the foregoing we can conclude that in the first stage of measles no diagnosis is possible by the cutaneous test, but a week after the appearance of the exanthema, the reaction is very useful, because in illnesses which occur after measles, especially bronchitis, it is very important to know if the individual is infected with tuberculosis or not. If the reaction is a positive one, one must be very cautious with the prognosis, as very often tuberculosis germs develop after measles. Probably it is that state of not reacting which gives the opportunity to the germs to develop.

In cases of suspected miliary tuberculosis or meningitis a positive reaction speaks in favor of it, but on the other hand, a negative reaction does not speak against it; it speaks even with certainty for a miliary development, if we find a negative reaction in case where we formerly found a positive one.

In very young children, as I said before, the reactivity lasts very long, in many cases even to death, whereas in more grown children, and especially in adults the reactivity seems to cease sooner. In general, the conditions of reaction in adults are far more complicated than in infants. In infancy a positive reaction means greater danger for the life; infections with tuberculosis acquired in the first six months of life seem to end nearly always with death. The older the child is the less dangerous the infection with tuberculosis seems to be.

In Vienna it is certain that the majority of more grown children and nearly all adults have a tuberculosis reactivity from slight infections, which are limited to parts of the lungs or glands and do not cause any inconvenience to the person.

The reactivity of such persons is in general a very slight one and they react only at a second application, which I called a "secondary reaction." But many of them have a greater reactivity, may be by some slight reinfection without being in any danger. Only a very severe reaction at the first application has a significance in adults. It means that there has been some new process at work, but one can not conclude if it is a slighter or severer one. A severer reaction in connection with a suspicious disease speaks for the tuberculous nature of the latter. On the other hand, that non-reacting after repeated applications of tuberculin proves (except in measles or miliary tuberculosis, as said before) that the individual is free from tuberculosis, and makes it certain that a suspected disease is not tuberculous. (In such cases in which one wishes to exclude tuberculosis, instead of making several cutaneous applications, a quicker result is found, if one makes, after the first negative cutaneous reaction and infection with 1 mg. of old tuberculin and pays attention, after the proposal of Dr. Hamburger, to the local subcutaneous reaction.)

The principal value of the cutaneous test includes the years from birth to three or five; during these years nearly all infected children react at the first cutaneous application, a slight and mild tuberculosis is in that age more rare, complications of infection are also rarer, and, therefore, diagnosis and prognosis by the cutaneous test can be made in nearly all cases.

The fifty-third regular meeting of the Clinical and Pathological Section of the Academy of Medicine of Cleveland was held at 8 p. m. Fri-

day, October 2, at the Cleveland Medical Library. The program was as follows: "Acute Pericarditis following Removal of Gonorrheal Pus Tubes," J. L. Bubis; "The Early Care of Eye Injuries," Edward Lauder; "So-called Traumatic Asphyxia, Report of a case," illustrated with lantern slides, R. A. Bolt; "Some Clinical Observations on Dementia Praecox," J. S. Tierney.

A meeting of the Lake County Medical Society was held November 2. The program was as follows: Presentation of cases; reports from committees on nominations and public health and legislation; miscellaneous business; letters from Drs. Upham and McCormack. R. H. Birge, of Cleveland, presented a paper entitled "The Surgical Aspects of Exophthalmic Goiter."

At the regular meeting of the Geauga County Medical Society, held October 1, the following officers were elected: President, O. A. Hopkins, Middlefield; vice-president, A. D. Williams, Huntsburg; secretary and treasurer, I. F. Cramton, Burton.

J. A. Dixon, of Ashtabula, was the guest of the day and gave a most interesting and profitable paper on "Carcinoma of the Breast." The discussion which followed brought out a great deal of interest. The society decided to hold its meetings once in two months instead of three times, as heretofore. The next meeting will be held on the first Thursday in December.

A meeting of the Trumbull County Medical Society was held at Warren October 29. F. E. Bunts, of Cleveland, addressed the society on "Certain Aspects of Brain Surgery of Interest to the General Practitioner."

The Huron County Medical Society met Thursday, October 8, at Norwalk. The subjects presented were: "Acute Endo-carditis," by E. N. Hawley, and "The Pioneer Physicians of the Firelands," by F. E. Weeks.

The Ashtabula County Medical Society held their thirty-seventh meeting in the business college, Tuesday evening, October 6.

There was a good attendance, and several interesting papers read, as follows: B. C. Eade, of Conneaut, paper on "Ophthalmia Neonatorum;" D. G. Palmer, Geneva, paper on "Carbuncles;"

Lee C. Stiles, Austinburg, paper on "Epilepsy." There was a general discussion of these papers. Mary Battles presented a very interesting case of ophthalmia neonatorum, which had made nearly a perfect recovery. F. D. Snyder presented two clinical cases of trachoma, one being in the acute stage, while the other case had been chronic for years, and showed the great destruction that trachoma is liable to do. The former case had been treated by a so-called neurologist without any attempt to diagnosis, or any rational treatment, this goes only to show how important an early diagnosis is of this very infectious disease.

Dr. McCormack held three meetings in this district, one at Medina on October 19th, Ashtabula on the 23d, and at Elyria on the 24th, besides addressing the medical students of Cleveland.

His remarks to the physicians and students were plain but wholesome truths which must be acknowledged; his plans for overcoming the abuses which have crept into the practice of medicine aroused great interest.

His public addresses to the laity were equally well received, and the appreciation displayed shows how great an interest intelligent people are taking in health matters at the present time.

SIXTH DISTRICT

The regular monthly meeting of the Summit County medical Society was held Tuesday evening, October 6, at 8:15 in the Medical Club rooms. The program was as follows: "Salt as a Factor in Health and Disease," J. H. Seiler; "Salicylic Acid," C. E. Norris; "Address," L. S. Ebright.

Dr. J. N. McCormack held two very successful meetings in Akron, October 27th. He addressed over one hundred physicians in the afternoon and aroused very great interest in his exposition of the possibilities of post-graduate work in county societies. He was the guest at a large dinner given by the Summit County Medical Society, and addressed a large and deeply interested audience in the evening. The church in which he spoke is said to hold 1500 people, and it was crowded and many were turned away. Great results are to be looked for from these two meetings.

Dr. J. N. McCormack addressed the Wayne County Medical Society on the afternoon of October 22d, and held a very successful public lecture in the evening.

His remarks to the physicians stirred up unusual interest, especially in regard to post-graduate work. The evening meeting was held in the city opera house and was very well attended by an enthusiastic audience, some of his hearers characterized the lecture as one of the finest they had ever heard. Wayne County congratulates itself on these opportunities of hearing Dr. McCormack.

The Mahoning County Medical Society held a special meeting on the afternoon of October 26th to meet Dr. J. N. McCormack. His address to the physicians present was listened to with great attention, and his discussion of the post-graduate work for County Societies aroused great interest.

The public meeting held in the evening was a very successful and enjoyable affair. Dr. McCormack's forceful and eloquent method of presenting facts carries conviction and cannot but result in great good for both the public at large and the medical profession.

SEVENTH DISTRICT

The fifth annual meeting of the Seventh Council District was held October 29. The program was as follows: "High Frequency Current in Treatment of Sprains and Bruises," Jas. O. Howells, M. D., Bridgeport. Discussion opened by J. S. McClellan, M. D. "The Necessity of a National Board of Health," S. O. Barkhurst, M. D., Steubenville. Discussion opened by E. B. Shanley, M. D. "The Treatment of Gastric Ulcer Based Upon the Results of One Hundred and Forty Cases," J. A. Lichty, M. D., Pittsburg, Pa. "Tubercular Cervical Lymph Glands in Childhood and Adolescence," A. F. House, M. D., Cleveland. Paper by B. R. Park, M. D., Wellsville. Address by J. N. McCormack, of Kentucky. "The Post-graduate Course," J. E. Groves, M. D., Uhrichsville. "Gastro Intestinal Diseases of Second Summer," A. C. Groves, M. D. Jewett.

The fifty-third regular meeting of the Lake County Medical Society was held at Painesville, Monday, October 5. The program was as follows: Reports and presentation of cases; Miscellaneous business; J. B. McGee, of Cleveland, presented a paper entitled "Drugs in Cardiac Disease;" discussion.

The fifth annual meeting of this district was a very successful one. The papers were highly interesting and brought forth good discussions. Es-

pecial interest was taken in the papers by the guests of the day—J. A. Lichty, of Pittsburg, who treated of "Gastric Ulcer," and A. F. House, of Cleveland, on "Tubercular Lymph Glands in Childhood and Adolescence."

Among other out-of-the-district guests were W. D. Hamilton, of Columbus, and the State Secretary who took part in the discussions.

Election of officers: J. S. McClellan, of Bellaire, was elected President, and A. C. Beetham, of Bellaire, Secretary. Toronto was chosen for the place of meeting in 1909.

Dr. J. N. McCormack addressed the meeting on the needs of the profession, and told some plain truths as to the past and present conditions, mentioned abuses which have arisen and their remedy.

In the evening, Dr. McCormack addressed a large audience in the M. E. Church and aroused great interest and enthusiasm by his eloquent presentation of facts about the medical profession and the necessity for closer relations between it and the public.

The Tuscarawas County Medical Society held a special session, October 28th, in honor of the presence of Dr. J. N. McCormack, of Kentucky. His informal talk to the members was most inspiring and aroused great interest in the A. M. A. plan of post-graduate study for County Societies.

His public lecture in the evening was held in the Opera House and was a great success. The attendance was excellent and the audience was enthusiastic. Great interest was stirred up among the people of New Philadelphia in health matters, and much greater cooperation may be looked for from them in the future.

EIGHTH DISTRICT

The Licking County Medical Society held its regular meeting Tuesday, October 6, with a very good attendance. Papers on organization were read by H. B. Anderson and D. J. Price, and aroused considerable interest and brought out a free discussion.

F. S. Watkins, secretary of the State Bureau of Vital Statistics, read a paper, outlining the plans of the new bureau, and answered questions of the members.

The State Secretary addressed the society in behalf of the McCormack meetings, and urged the holding of such a meeting in Newark. Subsequently a resolution was passed authorizing a McCormack meeting for October 20.

On October 20, Dr. McCormack addressed a called meeting of the Licking County Medical Society, and gave an extremely interesting and valuable talk on organization work and post-graduate study.

In the evening he addressed a public meeting at the Y. M. C. A. building, giving an excellent and extremely instructive lecture. Numerous expressions of interest and approval heard after the meeting show that a very deep impression was made upon his audience. Steps were taken to follow up his plans for a series of public lectures on public health lines.

NINTH DISTRICT

Three McCormack meetings were held in this district during October at Portsmouth, Ironton, and Jackson, under the auspices of the Scioto, Lawrence, and Jackson County Medical Societies respectively. The afternoon meetings with the physicians in each locality gave a delightful opportunity to meet Dr. McCormack personally and to discuss with him informally the general conditions in the medical profession. His extremely interesting exposition of the plan of post-graduate study for County Societies inaugurated by the American Medical Association aroused considerable enthusiasm and started a movement to take up this work in these counties.

The evening meetings were all well advertised by the local committee and resulted in splendid meetings in all three cities. The audience showed their interest and appreciation of Dr. McCormack's masterly address, and lively discussions followed his invitation to comment on the several points he had elaborated. He has set the people in these counties to thinking and great results are to be hoped for from his presence in this district.

The sixth annual meeting of the Ninth District Medical Society was held November 12. After the business session the following program was given: "Observations on Adams-Stokes Syndrome," with report of cases, Jehu Eakin, Gallipolis; discussion opened by S. P. Fetter, Gallipolis. "Castration of Confirmed Criminals and Rapists; Segregation of the Tuberculous," Lester Keller, Ironton; discussion opened by J. J. McClung, Jackson. "Malaria in Relation to Eye Diseases," G. A. Sulzer, Portsmouth. "Diseases of the Eye and Their Treatment by the General

Practitioner," D. Hartinger, Middleport; discussion opened by G. M. Marshall, Portsmouth. "Who Shall Do Surgery?" W. F. Marting, Ironton; discussion opened by O. C. Andre, Waverly. "Our Medicinal Agents—Shall They Be the Alkaloids Exclusively, or Shall We Continue with Fluid Extracts, Tinctures, etc.?" C. O. Dunlap, McArthur. "Influence of Medicinal Agents in the Cure of Disease," E. L. Dando, Wellston; discussion opened by W. E. Williams, Jackson. "Treatment of Acute Pharyngitis and Tonsillitis," C. M. Mooney, Waverly; discussion opened by H. J. Brown, Ironton. "Causes Increasing the Number of Seizures in Epilepsy and More Efficient Treatment of Same," W. H. Pritchard, Gallipolis, superintendent of Ohio Hospital for Epileptics. "The State Bureau of Vital Statistics," F. L. Watkins, registrar, Columbus. Banquet at Hotel Washington at 7:30.

TENTH DISTRICT

The Tenth District Medical Association held its fifth annual meeting at Circleville, October 9, and it proved very successful and the largest in point of attendance in the history of the association, 124 members being present. The wives of the visitors were invited this year, and some thirty odd were present in addition.

The address of welcome was gracefully delivered by the chairman of the committee on arrangements, D. V. Courtright, president of the Pickaway County Medical Society.

The annual address of the president, G. E. Robbins, of Chillicothe, was next on the program. He dealt with timely topics pertinent to the work of the association.

Several recommendations and resolutions were adopted at the business session. Among these were that the component societies study the proposition of securing the best secretary available, elect him to office and keep him there as long as possible; that the delegates to the annual meeting of the State Association meet at the call of the Councilor of the district previous to the annual meeting to consider points of interest to the district likely or liable to be brought before the State Association; that a list be formed of members who will be willing to read papers before the various county societies other than their own, at short notice, and that each county secretary afford each member an opportunity to place his name on the same.

Resolutions adopted: One urging that Governor Harris appoint a physician on the board of

trustees of Athens State Hospital in the vacancy now existing, and endorsing G. E. Robbins, of Chillicothe, for such appointment; secondly, that T. W. Rankin, of Columbus, be induced to permit his name to be presented to the State Association as a candidate for its presidency at the next annual meeting.

Delaware was selected for the next meeting in 1909.

The election of officers for the ensuing year resulted as follows: President, D. V. Courtright, Circleville; first vice-president, L. T. Henderson, Marysville; second vice-president, R. L. Pierce, Mt. Gilead; third vice-president, A. E. Loyer, New Washington; secretary and treasurer, G. O. Beery, Lancaster.

The meeting then adjourned for lunch, given by the Pickaway County Medical Society.

The scientific program was as follows: "Anesthesia," H. R. Plum, Lancaster; discussion, J. J. Silbaugh, Lancaster. "Certain Phases of the Appendix Question," Fred Fletcher. He said in part that he looked upon intra-abdominal trauma as the invariable predisposing cause of a diseased appendix, and cited the following etiologic factors: First, an anatomic defect—a too long meso-appendix that permits of great mobility, or a meso-appendix so short as to actually curl or angulate the appendix. Secondly, intra-abdominal trauma, secondary to a movable cecum that displaces the appendix. Thirdly, an attack of appendicitis that is in keeping with the permanency of the obstruction and the virulency of the invading organisms. He spoke of the early recognition of the malady; of the obscure symptoms incident to the chronic forms of the disease; of the Senn appendix, the value of the Morris point of tenderness, and of the local and referred pains encountered in both acute and chronic inflammatory involvements of the appendix.

The value of the leucocyte count was considered in detail, and it was pointed out that the blood picture should be studied as an important symptom of the general clinical manifestations. The mere estimation of the total number of leucocytes sheds no special diagnostic light. In other words leucocytosis cannot be used as pathognomic of any definite pathologic lesion. A leucocytosis means more than the mere increase in the number of white cells—it is an index of the body's power of resistance—an evidence of the individual's ability to overcome an infection. And of still greater importance is the differential count—the relative increase in the number of polynuclear cells, for

these cells suggest the degree of toxemia and the destructiveness of the pathologic process. Dr. Fletcher said that experience and good judgment were essential for the correct interpretation of the blood picture, and that the real value of the differential count rested in the accuracy of its making by a competent pathologist.

"When to Operate" and "Post-operative Treatment" were considered in detail. Discussion, J. F. Baldwin, Columbus. "The Etiology of Nervousness," J. W. Maxwell, Chillicothe. Discussion, C. D. Mills, Marysville. "Sleep, With Special Reference to Insomnia," W. D. Deuschle, Columbus. Discussion, D. N. Kinsman, Columbus. "Chronic Atrophic Thyroiditis," George Morehouse, Delaware. Discussion, G. M. Waters, Columbus. "The Diagnostic Use of Tuberculin, With Report of Cases," J. H. J. Upham, Columbus. Discussion, J. D. Dunham, Columbus. Adjournment for entertainment provided by the Pickaway County Medical Society.

In the "Etiology of Nervousness," Dr. Maxwell called attention to the preponderance of cases in which nervousness is secondary rather than primary; he showed its infrequency as a distinct entity; he believed that too often it was merely used as an excuse for slipshod methods, and urged that in all cases where this clinical condition is present a careful search for possible underlying organic disease elsewhere than in the nervous system be made and such causative factors excluded before a diagnosis of nervousness be made. That in the treatment of nervousness, the treatment of the cause is indicated, rather than the nervousness itself. Paper discussed by C. D. Mills and J. H. J. Upham.

J. H. J. Upham spoke briefly of the development of the use of tuberculin injections, the character of the substance, the theories of the reaction, its harmlessness when properly employed in selected cases, its value in diagnosis of early cases, and the technic to be followed.

He illustrated the character of the positive and negative reactions in six cases with temperature charts as follows: Case 1, empyema, reaction negative. Case 2, tubercular meningitis, reaction positive. Case 3, enlarged glands of neck, negative reaction aiding in distinguishing Hodgkin's disease from tuberculosis. Case 4, tubercular cystitis, reaction positive. Case 5, tubercular peritonitis, reaction positive, confirmed by operation. Case 6, pulmonary tuberculosis, reaction positive, sputum examination negative.

COLUMBUS ACADEMY OF MEDICINE.

Regular meeting, September 21. The program follows: "Cirrhosis of the Liver, with Reports of Two Cases," G. M. Waters. Discussion, Drs. Scott, Kinsman, Leach, Baldwin, Upham and Timberman. "Purgation in Acute Appendicitis," J. F. Baldwin. Discussion, Drs. Winders, Fletcher, Howell, Barnhill and E. A. Hamilton.

Regular meeting, October 5: "Sleep, with Special Reference to Insomnia, Its Etiology and Treatment," W. D. Deuschle. Discussion, Drs. Wilson, Stockton, Tarbell and Gaver.

Regular meeting, October 19: "The Ochsner Treatment of Appendicitis," J. U. Barnhill. Discussion, Drs. William Hamilton, Lawrence, Upham and Fletcher. "Diagnosis and Treatment of Diabetes Mellitus," John Dudley Dunham. Discussion, Drs. Winders, Upham, Waters, Harding, Baldwin, William Hamilton and A. Melville Crane of Marion.

A special McCormack meeting was held in Marysville on Sunday, October 18th. Three churches united in order to give as many as possible an opportunity to hear the speaker. A magnificent meeting resulted; not all who desired admission could be accommodated, and a large and deeply interested audience listened to a splendid address. Leading citizens took part in the discussion following the lecture, and manifested their desire and intention to cooperate with the medical profession in securing better legislation.

Dr. J. N. McCormack met the Delaware County Medical Society in special session on the afternoon of October 21st at Delaware, and gave an extremely interesting informal talk to the physicians present. His criticism while kindly expressed must be acknowledged in a large degree, and the methods for self improvement of the medical profession are worthy of an earnest trial.

Gray's Chapel in the evening was crowded by a deeply interested audience which showed its approval of Dr. McCormack's plain but forceful and eloquent address. Measures will be taken to follow up this splendid beginning in public education.

Among the out-of-town guests in attendance at the meeting were Councilor C. D. Mills, of Marysville, and C. O. Probst, of Columbus.

NEWS NOTES

Of the nine physicians who took the examination at the Barracks for positions as assistant surgeons in the army with rank of first lieutenant, only one passed, according to word received from Washington. N. L. Diarmid, of Dayton, was the only one to get through. Of the 125 who took the examination at the various posts throughout the country, only twenty passed. The reason is that the examination is a severe one, and the applicants were men who had been practicing, but did not have time enough or did not try to make special preparation. An examination for places in the Medical Reserve Corps of the army was held at the Post, September 15. There were five applicants. If successful the applicants will be commissioned by the President when they are pressed into service.

Harry F. Kattenhorn, Cincinnati, born 1869, graduated Medical College of Ohio, 1891, died October 3, 1908, of pneumonia after a few days illness. Dr. Kattenhorn was a member of the Cincinnati Academy of Medicine, Ohio State Medical Society and American Medical Association. He was a great traveler, having gone twice around the world and several times to Europe, besides having traveled extensively over North and South America. The funeral took place in the Scottish Rite Cathedral, and was largely attended.

The Chair of the Practice of Medicine in the Miami Medical College, made vacant by the sad death of Joseph Eichberg, has been filled by Oliver P. H. Holt. The Chair of Pathology and Clinical Medicine, vacated by Dr. Holt, has been filled by Arch I. Carson. John H. Landis has been made Professor of Hygiene in the Miami Medical College.

E. H. Rorick, former Superintendent of the State Hospital at Athens, and the Institution for Feeble Minded Youth, Columbus, has been appointed to the superintendency at Athens. Dr. Rorick succeeds J. T. Hanson, recently resigned, and assumed his duties October 1.

The regular meeting of the St. Alexis Hospital Alumni Association was held at the Hollenden,

in Cleveland, Thursday evening, November 5, at 8 o'clock. The program was as follows: Report of cases, (1) Typhoidal Myocarditis, (2) Cervical Adenitis, T. J. Calkins; report of case of acute mania, George M. O'Neil; "Certain Uncommon Forms of Abdominal Pain," with report of case, B. Peskind; "The Significance of Acute Abdominal Pains," W. J. Manning.

Koch isolated the comma bacillus of cholera in 1884. Although occasional cases have been brought by ship to the quarantine stations in this country, the disease has not gained a foothold in this country since 1873. In 1854, Asiatic cholera prevailed widely throughout the United States.

Charles A. L. Reed, Cincinnati, will deliver a public lecture at the New York Academy of Medicine, October 29, on "The Character, Status and Economic Value of a National Department of Public Health."

L. M. Early, Columbus, for many years a prominent physician, has sold his practice and in the future will devote his time and attention to the Artura Photograph Company, in which he is interested.

The State Board of Pharmacy has revoked the license of John S. Greenwood, druggist, at 343 East Mound street, Columbus, who pleaded guilty to a charge of selling cocaine illegally.

Brooks F. Beebe of Cincinnati has spent the summer at home, diversified by frequent short trips to county and local societies. His last visit was at Wapakoneta.

O. P. Coe is the candidate of the Republicans and Dr. W. L. Shriner for the Democrats for Coroner of Hamilton County. Both gentlemen are from Cincinnati.

W. E. Shaw, who left Cincinnati in August to make his future home in Idaho, has returned to his first love and has settled in North Side, Cincinnati.

Miami Medical College, Cincinnati, opened for its forty-ninth annual session October 1, the address being made by the Dean, John C. Oliver.

The McDowell Medical Society of Cincinnati has elected C. C. Meade President, H. W. Felter Vice President, and E. F. Nippert Secretary.

The physicians of Philadelphia and vicinity celebrated medical day on October 8. The exercises were held in the Walnut Street Theatre.

Thomas P. Hart of Cincinnati has been nominated by the Democrats to oppose the Hon. Nicholas Longworth for his seat in Congress.

Frederick Forchheimer has been appointed to succeed the late Joseph Eichberg as chief of the staff of the City Hospital, Cincinnati.

Daniel Coit Gilman, President Emeritus of Johns Hopkins University, Baltimore, died October 13, at Norwich, Conn.

"Daniel Drake and His Followers" is the title of a book nearing completion by Dr. Otto Juettner of Cincinnati.

"Dante as a Physician" is the subject of a book in course of publication by A. G. Drury of Cincinnati.

C. C. Agin has been re-elected President of the West End Medical Society of Cincinnati.

James T. Hanson, Superintendent of the Athens State Hospital, has resigned.

Robert J. Jones, Greenfield, has returned from Europe.

MARRIAGES

Charles J. Chamberlain of West Chester, Butler County, and Miss Alice L. Gerard of Port Union, Butler County, were married September 30, 1908.

Francis M. Fitton and Miss Helen Pfau were married October 14, 1908. Both are from Hamilton, where the doctor has practiced for many years.

James M. McGeorge, Salem, to Miss Florence Edna Knox of Franklinville, N. Y., at Cuyahoga Falls, O., September 22.

Ernest Scott to Miss Mabel Huddleson, both of Columbus, October 14.

DEATHS

John J. Blair, California Medical College, died October 5 in the Cincinnati City Hospital, from the effects of cyanid of potassium, aged 61.

Zachara T. Houseman, Electic Medical Institute, Cincinnati, 1870, died at his home in Fostoria from dropsy, September 12, aged 59.

John W. N. Vogt, Columbus Medical College, died at his home in Delaware, October 4, from organic heart disease, aged 56.

Charles E. Bailey, Western Reserve University, 1891, died at Greensburg, from cancer of the stomach, aged 40.

Russel H. Smith, Cincinnati College of Medicine and Surgery, 1871, of East Liberty, died August 30, aged 64.

Gus R. Burson, Starling Medical College, died at his home in Mt. Blanchard, February 28, from apoplexy, aged 65.

John H. Rodgers, University of Pennsylvania, 1856, died at his home in Springfield, September 28, aged 75.

Ferdinand W. Rose, Cincinnati College of Medicine and Surgery, died at Greenfield, September 3, aged 33.

Lark Moon, Starling Medical College, 1891, died at his home in Columbus after a long illness, aged 42.

Lindley Schooley, Starling Medical College, 1853, died at his home in Belmont, September 17, aged 83.

John G. Gilmore, Miami Medical College, 1878, of Freeport, died at Flushing, O., September 13, aged 41.

Daniel T. Black, Physio-Medical College, Cincinnati, died at his home in Ft. Jefferson, September 1.

James A. Macready, Medical College of Ohio, 1859, died in Cincinnati, September 29, aged 73.

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ORIGINAL ARTICLES

VAGINAL CAESAREAN SECTION.

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Cleveland,

Lecturer on Obstetrics in the Medical Department
of W. R. U.

[Read before Ohio State Medical Association.]

Obstetrical surgery has failed to show, for many years, such noteworthy progress as is seen in the recent development of vaginal Caesarean section.

That the operation has proved to be a marked advance over old methods of emptying the uterus in certain conditions will not, I believe, be questioned.

That there may be some difference of opinion as to all the indications for the operation or perhaps as to the best methods of operating is probable. This must needs be so in all new procedures, but should not detract from their true worth.

It frequently happens in the progress of surgery as well as in other lines of investigation that there is a division of opinion as to whom credit for the origin of the operation should be given. That question has come up regarding this operation. No one denies that it is the outgrowth of the multiple incisions of the cervix known by Dührssen's name, and it is he who first suggested the extension of the incision anteriorly through the lower uterine segment so as to make possible the immediate delivery of the child. This was in 1895. He did not operate, however, till 1896, and in the interval Acconci delivered a six-months' fetus by this method and removed the uterus at the same time in a case of carcinoma of the cervix.

The two sides of the controversy are presented by Stamm of Fremont (1) and Holmes of Chicago (2), to whose articles those are referred who wish to study this part of the subject. That full credit for bringing before the profession the merits of the operation is due to Dührssen is not questioned. On the other hand let not the mem-

bers of this association forget that it is to one of their own associates, Dr. Stamm of Fremont, to whom honor is due for performing the first operation in this country. His report of the operation (1) was received with marked lack of enthusiasm, and it must be a source of much satisfaction to see the operation being adopted by those who first opposed it.

The question naturally arises what conditions of pregnancy or labor would justify such a radical operation, and what are the advantages of the operation over other methods of emptying the uterus that should give it the preference? Again, are the dangers of the operation, whether immediate or remote, so much less or greater than other methods as to give the patient greater or less safety if it is chosen?

First, as to the conditions justifying the operation. They are well put in a general statement by Dührssen, who says that the operation is indicated "when, in a case of an imperfectly dilated cervix which will not permit of dilatation by gentler means, the life of the mother or the child is brought into danger." To be more specific, we may say the operation is indicated, first, because of rigidity of the cervix, and, second, because, when rigidity of the cervix exists, some complication of pregnancy or labor threatens the patient's life.

Rigidity of the cervix, per se, is not so common except when labor is premature in a primipara, but is usually dependent on some outside cause as malpresentation of the fetus or maldirection of the cervix so that the direction of the dilating force is improperly applied. Again, cicatricial tissue or malignant growth may prevent dilatation so that operative procedures must be adopted. Except in the latter condition, where one would wish to remove the uterus at the same operation, vaginal Caesarean section would very rarely be chosen, for rigidity of the cervix, in preference to the gentler, though slower, methods of dilatation, unless some organic disease threatens the patient's life or some complication of pregnancy or labor demands rapid delivery.

These complications, comprising the second indication for the operation, may be classed as maternal and fetal, the former being most frequent, and also affecting the fetus, thus having a double significance.

Foremost of the maternal indications are eclampsia, valvular disease of the heart and accidental hemorrhage. In addition to these three conditions the operation has been performed for placenta previa, chorea, hyperemesis, septic fever during labor, and on the moribund and dead. One case of prolapse cord has been reported. Interruption of pregnancy or termination of labor may be required in many complications, but whether this should be by rapid method or not depends on the urgency of the case, and must be decided in each case. Should it not require haste even a rigid cervix would probably yield to slower methods, but should haste be necessary vaginal Caesarean section might be indicated even though the cervix were not especially rigid. On the other hand, if there is a disproportion between the pelvis and fetal head vaginal Caesarean section should be rejected. Dührssen puts the lowest limit of the conjugata vera at 8 C. M., but this seems to be too low. When we consider that about 50% of labors where the conjugata vera is 8 C. M. are difficult, many of them requiring severe operative procedures, we will realize that we would probably find, after having opened the uterus, that the delivery of the child was either accompanied with great risk to it or was impossible without a craniotomy or pubiotomy. Such a combination of operations hardly seems justifiable today when, in these cases abdominal Caesarean section is so successful, nor will abdominal Caesarean section be indicated in as many cases as it was before vaginal Caesarean section was perfected.

I believe I have already said enough to show that I do not consider this an operation that can be done indiscriminately or that can at all times displace the older methods of emptying the uterus. There are advantages, however, which under the conditions already given should give it the preference. When eclampsia, heart disease and accidental hemorrhage, the three strongest indications for the operation complicate pregnancy or labor time is such an important factor that manual dilatation of a rigid cervix is often too slow for our patient's safety. Bossi's dilator has never appealed to me, for with it we are using a force which is too much of an unknown quantity. Shock also is a factor in all of these cases, and I believe it is too little considered. For example, take eclampsia. It has been my lot to see many of

these cases, in a large per cent of which it has been necessary to dilate the cervix to deliver. In several cases it has been especially noticeable that forcible dilatation produced a marked effect on the patient's heart. For these reasons, as well as because many cases are very difficult to dilate without extensive lacerations, some other method than manual dilatation has seemed very desirable. For the past two or three years I have seriously considered vaginal Caesarean section in those cases in which the cervix was not obliterated, and when it is thick and rigid. In several cases I have hesitated about using it, and believe today that I may have been over cautious, though in no case did I fail to manually dilate and deliver, saving the mother in each instance. The pelvic conditions in these cases, however, as determined by subsequent examinations were not so satisfactory and served to again raise the question if incision would not have been better.

In a patient with heart disease if the cervix is rigid and undilatable, and we have a failing compensation, time and shock will be saved by vaginal Caesarean section, and there will be less risk to our patient than by any other method of delivery. So also in accidental hemorrhage when the loss of blood is so severe as to make time an important element the operation is indicated. On the other hand in unavoidable hemorrhage, the wisdom of its choice is very questionable, for in the marginal type of placental attachment the hemorrhage can be controlled and slower methods of dilatation used. In the partial variety, and even more so in the central the low attachment of the placenta tends to cause a softening of the cervix so that other methods of dilatation are possible, and as far as controlling the hemorrhage is concerned will usually be better. No doubt a case of placenta previa may occasionally be seen where all the conditions would warrant this operation as in many other complications of pregnancy and labor. Much will depend on the skill of the operator, and his ability to weigh all symptoms in a careful and unprejudiced manner.

The third question for consideration is most important and deals with the dangers of the operation both immediate and remote. They may be stated as follows, injury to the bladder, laceration of the uterus beyond the incision, hemorrhage, sepsis, and rupture of the uterus in subsequent pregnancies. Injury to the bladder can be obviated by care in the operation, and should be charged, if occurring, not against the operation but the operator. Deep laceration of the uterus will not occur if one has properly estimated the size of the child's head, and made the posterior as

well as the anterior incision. Severe hemorrhage will not come from the incision, but, if there is any at all, it comes from the placental site, as in any case after emptying the uterus. When it occurs, the patient is in position to have the uterus immediately and very quickly packed. The dangers of sepsis are no greater than in other operations, nor as great as in some. What better place is there for the introduction and growth of germs than the bruised and torn cervix during and following a manual dilatation. Such lacerations are not sutured, and, if they are, how many of them will unite as compared with the clean-cut incision of a vaginal Cæsarean section?

The danger of rupture of the uterus in subsequent labors has been the most strongly urged of the objections to the operation. Findlay³ voices these objections in an article in which he favors abdominal Cæsarean section instead of vaginal. He says: "Rupture of the uterus in subsequent pregnancies through the scar of a Cæsarean section is not an uncommon accident, and it is apparent that since the large majority of ruptures of the uterus is in the lower segment, a scar at this point will more likely be disposed to rupture than one located in the fundus." Dührssen⁴ answers this objection by the claim that danger of rupture following the vaginal operation is absent. He refers to eleven deliveries after vaginal Cæsarean section, observed by different men, in all but one of which the labor was easy. In this one the same rigidity existed as led to Cæsarean section the first time, but Bossi's dilators were used instead. These failed to overcome the rigidity, and the child was delivered only after multiple incisions of the cervix. It is too early as yet to have had many cases of labor following this operation, so we must form our opinion from other than clinical evidence.

Consider the differences in the location and character of the scar in the two operations. The upper segment of the uterus is active or contracting, placing a much greater strain on a scar than would be on one in the lower segment, which is passive. In suturing an incision in the lower segment, all the tissues are included, giving a much more solid scar than in the upper segment, where the sutures do not go through the decidua. Moran⁵ refers to an article by Everke in *Die Monatschrift für Geburtshilfe und Gynakologie*, in which the opinion is expressed that the liability of the uterus to rupture following the Sänger operation is due to the fact that the decidua is not included in the sutures, so that in the retraction of the uterus the opposed edges of the incision become separated, forming a furrow of

fibrous tissue covered with peritoneum and mucous membrane. Moran says he has been able to verify this apparent change in labor following the classical operation.

Granting, as Findlay says, that the largest number of ruptures occur in the lower segment, what are the clinical facts regarding them? Is it not true that most of them follow some abnormality, a proper treatment of which would prevent rupture? For example, what more common cause of rupture of the uterus is there than in prolonged labors where the pelvis is contracted? In such pelves a vaginal section should not be done, and a danger could not exist in a later pregnancy. It is possible that in a case in which vaginal Cæsarean section had been performed there might occur, in a subsequent pregnancy, a neglected shoulder presentation, a hydrocephalus or other condition, which would favor rupture of the uterus, but such a chance would be rare, and a history of the case, if it existed, would suggest a treatment to prevent such an accident. These abnormalities are the ones most frequently causing rupture in the second stage after the membranes have broken, and ought we not to prevent such ruptures? Williams⁶ refers to nineteen cases of rupture of the uterus reported by Golden, in which the membranes had not ruptured. They were cases of oligohydramnios, very resistant membranes and rigid cervixes. Edgar⁷ says contributing causes of rupture of the uterus are anything which may narrow or make rigid the cervical canal. Such conditions, then, ought to be classed under contributing complications of labor indicating vaginal Cæsarean section to prevent rupture of the uterus. If after such an operation these conditions exist again in a subsequent pregnancy, why should a second vaginal section not be done, just as an abdominal has been repeated in the same patient?

The burden of proof still rests on the opponents of the operation, because, as compared with the classical operation, it is far superior in the conditions given and for the following reasons: (1) The peritoneal cavity is not opened, doing away with shock and the disturbance of the abdominal organs which follows the classical operation. (2) There is less danger of infection. (3) There is less objection on the part of the people. (4) Statistics show by far better results for vaginal than for abdominal Cæsarean section in eclampsia, which is the complication for which the operation has been most frequently done. The maternal mortality of eclampsia ordinarily treated is 20 to 25 per cent. According to Dührssen, Fry reports seventy-eight cases of eclampsia treated by abdominal section, with a mortality of 41 per

cent., while Veit reports one death in thirty-three cases of vaginal Cæsarean section, and Bumm one in forty cases. Dührssen reports two deaths in twelve cases, but one of these was moribund with heart disease, dying as soon as the uterus was emptied, and the other was a tuberculous case, with eclampsia, dying of tuberculous pneumonia four weeks later.

Before reporting my own cases, a brief description of the operation may be of value. In cases where the perineum is rigid, vaginal dilatation or incision should first be done. Dührssen and Schuchardt advise perineo-vaginal incisions. To this there have been many objections, Webster⁸ suggesting dilatation instead. This can be rapidly done and gives a sufficiently relaxed perineum for the operation. The anterior and posterior walls being separated with long, narrow retractors, the cervix is grasped with a tenaculum, and long heavy silk ligatures are tied into each side to take the place of the tenacula. Two methods of making the first incision have been given. Dührssen suggests a transverse incision at the junction of the cervix and anterior vaginal wall, and after the separation of the bladder from the uterus the anterior lip is incised and the incision extended through the lower segment. The other method, as described by Williams,⁶ is to make a longitudinal incision through the mucous membrane on the anterior wall from just below the urethra and carry it down to the os uteri. The edges of the mucous membrane are loosened, and, the retractor being introduced, the incision is made through the anterior lip and on up through the lower segment, the bladder being separated in advance of the incision, the retractor giving a view of the operation at all times. If the posterior lip is to be incised, it should be done first. A transverse incision is made at the junction of the posterior vaginal wall and the cervix, and after the peritoneum is separated the posterior lip is incised and the incision carried as far through the posterior portion of the lower segment as seems necessary to insure easy delivery of the head. Whether or not the posterior lip is incised depends on the month of pregnancy and the size of the child's head. The bag of water protrudes into the incision and is ruptured, the child being delivered either by forceps or version, the latter being the choice in all cases except when the head is engaged.

The uterus generally contracts promptly, the placenta is removed, and if there is much hemorrhage the cavity is packed. Some operators think it a good policy to put a strip of gauze in, so as to aid the drainage and prevent too tight

closure of the cervical canal. If it is used considerable care must be taken that the sutures do not catch it, or trouble removing it will follow. The sutures should be of catgut and should go through all tissues. The uterus can be drawn down so that it is not difficult to put them in, and its contraction decreases the incision of from 12 or 14 cm. to one of 5 or 6 cm., so that there is not as much suturing to be done as might seem at first thought.

Dührssen reports the mortality of vaginal Cæsarean section in 376 cases as 12.7 per cent. This is not high when it is considered that so many cases on which this operation is performed are complicated by sudden emergencies, which of themselves are threatening the patient's life. I believe that while this operation may sometimes be chosen when some less radical method would do just as well, yet if it shall come to be more generally chosen as an early operation instead of a last resort that the mortality will be much less. And in this connection I wish to state that, as a result of an experience covering many cases requiring rapid delivery, I believe vaginal Cæsarean section should be chosen in all cases demanding rapid emptying of the uterus if the cervix is only ordinarily rigid. This conclusion is arrived at not from having such a large experience with the operation, but because of lacerated cervixes that cannot be immediately repaired and because of the shock and time required in the ordinary method of delivery. That I have been slow to live up to my conclusions is seen by cases that I have dilated manually since my first vaginal section, but with each case the above conviction becomes stronger.

I wish to report three cases. Two have already been reported,⁹ the third having been operated on since this paper was commenced.

Case 1.—The patient, aged twenty-six, was a primipara who had had no illness since childhood, when she had scarlet fever. After the fourth month of pregnancy she noticed that her feet were swelling and then the whole body. At the end of the seventh month she had two convulsions about an hour apart and another one forty-eight hours later. Twenty-four hours later the case passed into the hands of Dr. Burdick, who sent her to St. Ann's Maternity and asked me to see her with him. At this time the urine was nearly solid alubmin. The pulse was about 160 and very weak, being counted with great difficulty. Shortly previous to my seeing her she had a "sinking spell," as it was called, the radial pulse being almost imperceptible. The general outlook of the case was unpromising, but the indication was most

positive to empty the uterus at once with the least shock to the patient. Examination showed that the cervix was long, thick and very rigid, barely admitting one finger. Preparations were made for vaginal Cæsarean section, but an attempt was first made to dilate. After the use of Goodell's dilators only one finger could be forced into the os, and manual dilatation was abandoned. The anterior and posterior lips of the cervix were incised, and the anterior incision was carried up through the lower segment. With Tarnier's forceps a living child was delivered. Including the time wasted in attempting to dilate, I was twenty minutes delivering the child. Putting in sutures lasted about thirty minutes, including two in the perineum. It may be said that the time spent was nearly as long as manual dilatation, but I have done that operation enough times to feel sure that in this case it would have taken an hour and a half to manually dilate, and to this must be added the time of repair of lacerations. The greatest gain, however, was saving the patient the shock of manual dilatation, which in her condition would certainly have been fatal. Hemorrhage was not severe, but was beneficial.

A detailed report of the subsequent treatment of the case is not necessary, being the same as I have used with such good success in the past and advised in previous papers.¹⁰ Her highest temperature was 101. It was normal at the end of five days. For forty-eight hours the urine was nearly solid albumin and contained many casts. This rapidly subsided after a few days' treatment and disappeared entirely in a few weeks. The first few days following the operation the patient's condition was most critical, she being unconscious for several days, but has made a splendid recovery.

Examination of the cervix at the end of three and a half weeks showed the general appearance to be normal, the union of the incisions being apparently perfect and the scar scarcely perceptible. The baby lived for ten days.

Case 2.—The patient was pregnant for the second time. The first pregnancy terminated at the third month, no cause being known, unless it was a mitral regurgitation which had existed many years. The recovery was very slow, due to the action of the heart, the apex beat being and remaining in the nipple line. The condition of the heart led to advice against future pregnancies, but when, two and a half years later, she reported that she was pregnant, interruption of the pregnancy did not seem advisable, especially as it was her wish that it should go on.

Early in the fourth month of her pregnancy

the patient was started on small doses of tr. strophanthus. This was gradually increased as the strain on the heart became greater. The results were very good, and the patient was doing nicely until the end of the seventh month. During this month she felt exceptionally well, in spite of the fact that she was becoming very large. The abdomen was too tense to make any accurate diagnosis of the contents of the uterus. There did not seem to be any reason to doubt the length of the pregnancy.

On the 3rd of last November, just two months before she expected to be confined, she had some shortness of breath, but not more than she had often had, and a little irritating cough. I had planned to see her the next day, November 4, but was not able to call. Late that evening, however, I was asked to see her because the dyspnea had increased. The minute I stepped into the room I suspected pulmonary edema. The patient was sitting up in bed somewhat cyanotic, and the breathing was rather labored. There were a few fine rales at the base of the lungs. The apex beat was still just outside the nipple line. The amount of urine had been somewhat less than usual for the past twenty-four hours, and there had been some swelling of the feet for the same period. Active treatment was at once started, and as a result of hot packs, cathartics, digitalis and strychnin, the patient was so comfortable in about four hours' time that I left her, but not without first telling her husband that it might be necessary to empty the uterus on short notice, and that it certainly would be if there were a return of the symptoms. It was the earnest wish of all to have the pregnancy continue at least two or three weeks more, if possible, in hopes of saving the child. I saw the patient again about four hours later—that is, about 8 o'clock the morning of November 5, and found she had been quite comfortable, though at times she had had slight dyspnea. A tank of oxygen was sent to the house during the forenoon in case of emergency.

At noon the patient was feeling much better and slept a little. At 3 in the afternoon she suddenly became very much worse, and on reaching the house I found her condition most critical. I immediately ruptured the membranes in hope of reducing the pressure enough to give relief. A large amount of water escaped, the child settling firmly against the os. The cervix was so rigid that one finger could not be pushed into it. In spite of the constant use of oxygen, started at the beginning of the attack, the patient was in-

tensely cyanotic, and her breathing was most difficult.

Course rales were found all over both lungs, and her condition was desperate. Emptying the uterus was the only hope. To attempt to dilate the os manually would only result in seeing the patient die during the attempt, and vaginal Cæsarean section was the only choice. Preparations were hurriedly made, and the operation was done with Drs. Lee and Season assisting. When the patient was put on the table, I did not expect to see her leave it alive. So deeply cyanotic was she that little chloroform was needed, not over half a dram being used altogether. The uterus was opened by an incision through the anterior lip and lower uterine segment and posterior lip; forceps were applied, and a four and one-half or five pound child was delivered. Then was seen why the trouble had come so early in the pregnancy. There was another child, and, as with the first, there was also an excessive amount of amniotic fluid. This child was also easily delivered. Both were stillborn from the same cause that was so rapidly killing the mother. The placenta was delivered and the patient allowed to bleed quite freely, after which the uterus was packed, and, as the cyanosis was rapidly clearing up, sutures were put in the incisions. Not over five or six minutes were occupied in emptying the uterus and twenty or thirty more in putting in the sutures. At one time the pulse became very weak. This may have been due to the rapid delivery, which is not wise as a rule in heart disease, but the emergency of the case seemed to justify such a chance. The patient was put to bed and soon became conscious. The cyanosis had almost entirely disappeared, and the dyspnea was markedly less. The urgency of the case was apparently over, but the danger that the heart could not regain its strength still existed, for the apex beat was in the mid-axillary line. For four hours the progress of the case gave hope of a possible recovery, when, without warning, the heart stopped beating. Naturally the question arose as to whether the uterus should have been emptied with the first onset of symptoms. If it had been and the case had been lost, then I would have been blamed for being too radical. It is of interest to note that at no time was there any involvement of the kidneys. The last thorough examination was made twenty-four hours before the onset of the edema, and no casts or albumin were found. Another test made the day of the patient's death was also negative.

Case 3.—The patient was a primipara and gives a history of tuberculosis four years before, and

she was very anemic. When six months along in her pregnancy she became nauseated and had such severe headaches that she consulted a physician, who told her she needed to get out doors. No examination of the urine was made. A week later Dr. Eddy saw her and on examination of the urine found it almost solid with albumin. He sent her to St. Ann's Maternity, where for ten days a most vigorous treatment was carried out, consisting of hot baths, followed by sweats, cathartics, diuretics, mild stimulants and milk diet. The albumin decreased to 25 per cent. by volume, and the vomiting and headaches stopped. The quantity of urine increased gradually to 1400 cc., and it looked as if the patient would be carried at least till the child was viable.

In spite of the treatment, the patient soon reached the point where the toxins accumulated faster than they could be carried off. Severe headaches and persistent vomiting returned, albumin increased to about 60 per cent. by volume, and there were many hyaline and epithelial casts and a few granular. The patient was becoming much weaker. I was asked to see her and found the condition as described. The threatening symptoms did not warrant further effort to save the child, and induction of labor was decided on. The os was so small that considerable difficulty was experienced in introducing an olive-tip bougie. It was left in place eighteen hours, during which time there had been only a few pains. On removing the bougie, one finger could be forced through the os. The intention had been to put in a bag to further dilate the os, but the fact that the patient was becoming more and more drowsy, together with the increasing weakness, led to the decision to immediately empty the uterus. As the child was not quite seven months, it seemed as if the os could be manually dilated enough to deliver it. This was tried for ten minutes without being able to make the least gain, and, though final dilatation would have been eventually obtained if I had persisted, such efforts would certainly be poor treatment as compared with incision, especially when considering the fact that the patient's heart was showing the effect of the efforts. For these reasons an incision was made through the anterior lip and lower segment and the child delivered. It did not appear to be more than a six months fetus and lived fifteen hours. The operation, including suturing, lasted twenty-five minutes.

As in all cases of threatened eclampsia, I continued vigorous treatment—hot packs, chloral and saline subcutaneously. During the operation she had been allowed to bleed quite freely. At the

end of twenty-four hours there had been no vomiting, and albumin decreased to 25 per cent. by volume, but the headache had returned. The pulse had dropped from 130 to 100, and the outlook was very favorable. With no other premonitory symptoms and in spite of treatment to prevent, she had a convulsion twenty-six hours after the delivery. At this time it was thought she would die, but under treatment she rallied and lived eight hours longer.

I have reported these cases so fully because at first thought one might conclude that with such results as this vaginal Cæsarean was not a reliable operation. Unprejudiced consideration, however, will show that the cases were all desperate, the first two being in extremis, and that the last two died not because of the method of emptying the uterus, but from the condition making it necessary. Much as I value good results and much as I should have preferred to report three recoveries, I will not refuse to take even a forlorn chance in hope of saving a life. In one of the three I was successful and should adopt the same measures in all the cases a second time if required. Incising the lower segment of the uterus without opening the peritoneum did not cause the death of the patient whose heart had suddenly dilated from the nipple to the mid-axillary line, nor did it cause death in the last case. If I had put in a bag in the last case and waited for the patient to try to deliver herself, I should have felt that the delay was in part responsible for the convulsion and death.

In spite of the unfortunate outcome of the cases, I believe most thoroughly in the operation in the conditions given and believe it should be more generally adopted than the bruising and lacerating of the cervix that will follow manual dilatation by the most skillful. I do not advocate its universal adoption, but under the conditions given believe it cannot be displaced by any other operation. These conditions I would sum up in conclusion, as follows:

1. In cases of eclampsia, when the cervix is not obliterated and is very rigid and unyielding.
2. In cases of heart disease under the same condition when rapid delivery is demanded.
3. In cases of separation of a normally implanted placenta.
4. It may be rarely indicated in placenta praevia when the hemorrhage is profuse and the cervix is not obliterated and is very rigid, a condition not frequent in placenta praevia.
5. In any other sudden complication of pregnancy or labor threatening the life of mother and

child where time cannot be given to the slower methods. In all these conditions there must be a proper proportion between the pelvis and child's head.

6. In the above conditions it is preferable to abdominal section, because, while it is as quickly performed, it does not cause so much shock, is not so objectionable to friends of the patient and is not so likely to result in rupture of the uterus in subsequent pregnancies.

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1917 East Ninetieth street.

PTOSIS OF THE GALL BLADDER.

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[Read before Ohio State Medical Association.]

Quains Anatomy says "The gall bladder is a pear-shaped membranous sac three to four inches long, about one and one-fourth inches across its widest part, and capable of containing from eight to twelve nuid drachms. It is lodged obliquely in the fossa under the surface of the right lobe with its fundus which projects beyond the anterior border of the liver directed downwards. forwards and to the right, whilst its neck is inclined in the opposite direction. Its upper surface is attached to the liver by areolar tissue. Its under surface and fundus are covered by the peritoneum which is reflected over them from the surface of the liver. In rare cases the peritoneum completely surrounds the gall bladder by a sort of a mesentery from the under surface of the liver. The fundus touches the abdominal parietes immediately beneath the margin of the tip of the tenth costal cartilage.

The gall bladder rests below on the commencement of the transverse colon and further back it is in contact with the duodenum and some tissues with the pyloric extremity of the stomach. The neck gradually narrowing is curved like the letter S and then becoming more constricted, and changing its general direction altogether, it bends downward and terminates in the cystic duct."

Blood supply—Cystic artery, branch of the right division of the hepatic artery.

Nerve supply—Coeliac plexus. The cystic vein empties into the vena porta.

The common bile duct or ductus communis choledochus is one-fourth inch in width and three inches in length, conveys bile to the duodenum.

Before entering the duodenum it is near or included in the head of the pancreas. In fact, it lies beside the pancreatic duct, opens by a common orifice into the intestine."

Helly in forty cases finds the common duct is in contact with the pancreas for a distance of two to 7 cm. In fifteen cases the duct was in a groove on the posterior surface of the pancreas. In twenty-five cases the common duct was surrounded by the substance of the pancreas.

Bunger dissected fifty-eight subjects. In fifty he found the common duct running through the substance of the pancreas. Only in three was it uncovered. In twenty of Moynihan's cases he found that the pancreas hid some part of the common duct. *He claims that only in 5 per cent. of cases does a hepatic gall bladder and cystic mesentery exist.* There is a chain of glands along the common duct. The common duct is situated between the layers of the gastro-hepatic omentum.

Taking into consideration the route of the common duct, its anatomy as above given, in at least 5 per cent. of the cases, we can readily understand from a mechanical standpoint, the dragging produced by ptosis of the filled gall bladders that draws or stretches its mesentery, until there is flexion of the common duct at a point within its supra duodenal portion, the upper third below the hepatic common duct insertion. With this condition we may have a dragging of the gastro hepatic ligament or the pancreas, the pyloric end of the stomach, the posterior wall of the duodenum, elevating the same posterior wall, while the anterior wall suffers from ptosis. From this ptosis resulting from the dropping and dragging on the cystic and common duct, arteries, veins and nerves coming from

the coeliac plexus, which supply the pancreas and stomach, you can readily understand how the gastro-pancreatic common duct end *non-infective* can suffer for any mechanical disturbance that may arise. From the failure of the gall bladder to contract sufficiently to expel its contents, we will call that retained fluid residual or stagnant bile which can be of the non-infectious type.

The gastric train of symptoms of pain and vomiting can come from the dragging on the stomach through the gastro hepatic ligament, which causes the irritable and aching stomach that too often is ridiculously test mealled, and so harmfully lavaged, until the power of digestion hardly has its head above water.

The normal abdominal cavity fortunately has not been cramped for space by just the healthy organs within, and it can and does adjust and adapt itself from a nine months ballooning of the uterus resulting from pregnancy, to a gall bladder that is full of fluid, and for this fluid weight the mesentery between the gall bladder and the liver becomes so stretched that the latter becomes functionally inactive; the dragging on the pancreas stomach posterior duodenal wall account for the tension on the common duct and the nervous supply that comes from the coeliac plexus, and the blood supply that comes from the cystic artery and branch of the right division of the hepatic artery. Such a gall bladder hangs free in the abdominal cavity not adherent, a recognizable pathologic condition. Give your patient calomel and you cause a letting up of the symptoms for a time as does the attention to diet, but soon your patient is back on the same old lines.

Ptosis, what are we to understand by the term? A partial dropping organ from its normal position without being able to return by its own muscular volition. We have it in retro-deviations of the uterus, which may be complicated by a procidentia. We have it in the prolapsed rectum, we have it in the dropping of that portion of the small intestine into one or both femoral rings. The same may be strangulated. We cannot have a ptosis of any intra-abdominal organ without dragging on the *arterial, venous-lymphatic and nervous supply*. The importance of the latter has not been duly considered. This causes functional retardation. Ptosis of any or any of the abdominal organs, began, for we are assuming the upright position—a penalty. The mesentery should swing from the ceiling, not from the wall, the latter illustrates what I mean by ptosis, a lateral pull on the "mesenteries" put-

ting them at a disadvantage as compared with the direct pull as found in the mesenteries of the quadrupeds. Brockbank says: "Any causes which depress the anterior portion of the right lobe of the liver cause at the same time a lowering of the fundus of the gall bladder. Corset wearing is the most prominent example of such a cause."

"The gall bladder therefore, even under normal conditions, has to be emptied against the action of gravity, so that there is a tendency to an *incomplete evacuation* of its contents, especially if any semi-solid or solid matter be present in it. The dependent position of the fundus of the gall bladder is much more marked in quadrupeds, where the long axis becomes almost perpendicular."

"In man the 'leaning forward' posture adopted at the writing table tends to bring the gall bladder more towards the quadruped position, and to increase the difficulty in emptying it, and an easy chair position acts in the opposite direction.

"One of the reasons why literary men frequently suffer from gall stones may perhaps be found in the position generally occupied by them during their work.

"Schroder found gall stones present post-mortem in 59.5 per cent. of all cases of 'corset liver' examined, and he also found a 'corset liver' in 24.5 per cent. of all the cases of gall stones he investigated. Schloth found the latter association of the two conditions in 10.5 per cent., and Rother in 40 per cent. of the cases of gall stones examined by them. In addition to corsets, any tight clothing which restricts the movements of the abdominal muscles also predisposes to the onset of the disease.

"Any conditions which impede the emptying of the gall bladder, and thereby induce *biliary stagnation*, are liable to excite the developments of gall stones. Moveable or floating liver (Weisker); adhesions of the gall bladder to neighboring parts (chronic local peritonitis around a duodenal ulcer was present in one of my cases, and in another the gall bladder was involved and fixed by a general abdominal lymph-sarcoma, and in a third by cancer of the ascending colon); constipation with collection of faeces in the hepatic flexure of the colon—are some of the conditions which may act in this way both in women and in men.

"The connection between a floating or moveable right kidney and obstruction to the outflow of bile from a gall bladder has been emphasized by Weisker, and also quite recently by Morris.

The last mentioned writer points out that both conditions are induced by tight lacing, that 80 per cent. of cases of floating kidney appear in females, and that the right kidney is affected thirteen times as often as the left kidney.

"A moveable kidney tends to cause distension of the gall bladder by dragging upon the duodenum and the bile ducts, thus obstructing the passage of the bile. (Morris)."

Botts, of Indianapolis, was the first to reveal the importance of incising the adherent gall bladder to the peritoneum through the abdominal wall for removing gall stones. This was the beginning of surgery of the gall bladder and its ducts. Men have drained the gall bladder and its ducts for the infection of the same and their contents.

For any extra-abdominal expression of ptosis, umbilical, inguinal or intestinal, pessaries held sway and do yet. Patients would be better if they were left in the closed and locked hand bag rather than on any belly or in any vagina. They are too often made the medical apology for prompt and secure surgery.

For any ptosis so treated, ovarian cystomas, fibromas, pancreas, liver, spleen, ascites, etc., all intra-abdominal, must be endured until the end, be that ending in the death of the patient. If it were not for the broad, from crest to crest, bony pelvis, man possibly would soon consider the propriety of returning to going on all fours for the possible arresting of that condition of general ptosis of the intra-abdominal organs. There is no evidence going to show that the quadrupeds suffer from ptosis of any of the intra-abdominal organs.

The following case of my own relates to ptosis of the gall bladder:

Miss T, æt. forty-two. Tall and slender. Has been suffering from loss of flesh for two years. Distress and tenderness over the region of the gall bladder. Food disagrees with her, vomits occasionally. Bowels tend toward constipation. At times stools are light in color and of bad odor. Contents of stomach examined from time to time—test meal—negative. No dilatation.

No attacks of biliary colic, no stones found in any of the stools. Small doses of calomel by the mouth would increase the flow of bile, as shown by the stools. This was followed by a partial relief of the pain over the region of the pancreas, pyloric end of the stomach and gall bladder. The lower margin of the liver was not lowered, nor was the liver markedly tender. There had never been no rise of temperature or pulse. The patient considered herself a

semi-invalid. There was never any jaundice of more than a very slight occasional yellowish tint of the skin.

In December, 1907, I advised opening the abdomen, which was readily accepted. It was done under chloroform anaesthesia as per the Harcourt chloroform regulator using from one-half of 1 per cent. vapor to 2 per cent. vapor. The incision was a longitudinal one free and over the gall bladder. Through this incision a good portion of the stomach was drawn out and examined by sense of touch and sight. The result of this examination was negative, as was that for pyloric stenosis. A distended gall bladder was found pendulous, well filled with its mesentery elongated for one inch. I had never seen such an elongation nor a gall bladder that hung so low down within the abdominal cavity. Incident to the opening of the gall bladder for drainage, no stone could be felt, not an adhesion could be found, which showed that the trouble had been and was non-inflammatory. The delivery of the gall bladder before puncture through the abdominal incision was easily perfected.

Following the incision of the gall bladder, about twelve ounces of clear looking fluid escaped, the last teaspoonful being dark and of the consistency of thinned tar. The gall bladder was thoroughly irrigated with warm water, and after satisfying myself that there was not a stone present, we stitched the gall bladder into the wound up against the peritoneum. A cholecystostomy for drainage. Within forty-eight hours an oversupply of bile was passing per rectum, and on to the abdominal dressings. She soon began to be relieved of her gastric distress, appetite improved and she gained in weight.

At the end of eight weeks I saw her again. to find about as much of the gall bladder prolapsed and laying on the outside of the abdomen as we had tucked inside when we did the cholecystostomy.

Immediately a secondary operation was suggested and accepted. The abdomen was re-opened dissecting out the dish rag of a gall bladder and plenty of it. The gall bladder mesentery was still elongated at least one inch. No intra-abdominal adhesions. We sutured with fine silk the gall bladder, all but the part up to the liver obliterating the mesentery. The gall bladder tissue was amputated close down to the cystic duct and the remaining open gall bladder stitched closely with fine silk and dropped. A cholecystectomy. Abdomen was closed with through and through silk worm gut suture.

Macroscopically there was no infection of the gall bladder wall nor of its contents removed. No sub-peritoneal glands along the common ducts were enlarged. The stools were carefully watched and saved for two weeks for stones, but none were found.

This patient has gained in flesh and strength in a most satisfactory manner without medication of any kind. Her trouble was due to induced faulty mechanics, which called for surgical intervention.

Two similar cases are to be added to this one, but it is not necessary to take up your time by their recitation.

DISCUSSION.

C. A. L. Reed: Mr. Chairman, I have listened with a great deal of pleasure to the paper which has been read. Gall bladder surgery has always been a subject of practical interest, not to say of importance in my own hands. I have had some shifting views as to various procedures which are to be given precedence under given cases and different circumstances. At first it seemed to me that about the only surgery that was advisable—and I am talking now of a period twenty years ago—was that of cholecystotomy, fixation of the fundus of the gall bladder to the wound, the removal of the calculi or other morbid contents and the subsequent drainage of the viscus. But an enlarging experience brought me to a realization of the fact that this recourse did not meet all the indications. The first rude jolt I received was after having done a very satisfactory cholecystotomy—after succeeding in evacuating the gall bladder of some 300 stones, maintaining drainage for a number of months, the patient improving all the while—but I could get no bile down through the intestines and a biliary fistula persisted. In this instance, then, I simply did a cholecystenterostomy with the aid of a Murphy button, the result was very satisfactory, and the patient lived some fifteen years and died of causes not at all connected with the bile trouble. In the light of that experience and a number of other cases of similar character I have had occasion to have recourse, in an elective way in primary operations in a large majority of cases to a cholecystenterostomy. Given a case of impaction of the common duct—an old history—one in which the stones from the duct are removed with difficulty, probably by incision of the duct and dislodgment in that manner—you may sometimes disintegrate it by manipulation and secure its passage into the duodenum—but in any event the irritation due to the surgical manipulation results almost inevitably in a diminution of the capacity of the gall bladder, frequently with resulting distention of the gall bladder and catarrhal complications. In such cases I have sometimes wondered whether I had better not attempt the common duct operation and simply do a primary cholecystenterostomy and thus short-circuit the bile into the duodenum and get rid of the damage to the gall bladder—a damage which has necessitated at my hands a secondary operation of

cholecystenterostomy. I believe it is a very much more advantageous operation than ordinarily it was given credit for, and now that we have become more familiar with anastomotic operations, especially on the stomach and intestines, the operation of cholecystenterostomy can be done now with a much more modified technique. The Murphy button is still a valuable instrument, to which I owe all my courage and incentive of doing this operation. But now I find it to be very much less necessary than formerly I thought it to be, and now very frequently the cholecystenterostomy is satisfactorily done by a mere incision, the assistant holding the two viscera together, and simply making a plain suture with clamps and without a Murphy button or any other aid. The button hole suture, if properly applied, enables one to do this operation with a great deal of facility. I have only done one case with this technique, but I am very much pleased with it, and I believe the adoption of this modified method of operation will present it so much more as a simplified operation than formerly.

Now, on the other hand we must recognize the fact that the cholecystenterostomy has very decided limitations which depend not upon the conditions described by the last essayist—namely, that of ptosis of the gall bladder, but upon the very opposite of that condition, and I say the limitations, namely, contraction, cannot be treated in this way, and under such circumstances it is manifestly the part of surgery to remove the viscus entirely. Fortunately we have learned here too a lesson of progress, namely, that the inversion of the organ is not a difficult thing, and if we can do that, the removal of the diseased gall bladder is a matter of comparative ease. I am not one of those who believe that the gall bladder is a functionless organ. We understand, of course, that it is a nocturnal repository of residuary bile, but I believe that a careful examination of those cases in which the gall bladder has been removed there is an increased tendency to intestinal disturbance; that is an impression I have, and I believe it rests upon a logical basis. I have seen a couple of cases in which I have been impressed with the clinical fact underlying this proposition. Now that being true, it seems to me the rule to be established with regard to the removal of the gall bladder is that it ought not to be removed save under circumstances under which it has become a functionally valueless organ.

Dr. Gillette, Toledo: Mr. Chairman, I want to say that I was very glad to hear Dr. Ricketts and Dr. Reed condemn the universal practice of performing cholecystectomy. I believe with others that the gall bladder has a function, not only to act as a reservoir for the bile, but I believe its influence is to regulate the flow of bile into the intestine. When it is removed, intestinal disturbances very frequently occur. So that I believe the gall bladder should be retained whenever it is possible. In these cases of ptosis of the gall bladder that Dr. Ricketts relates, fastening the gall bladder to the abdominal wall, and raising the fundus as in the old way, I know from experience restores the function of the gall bladder perfectly. Oftentimes under such circumstances the gall bladder is very greatly

enlarged. It very readily becomes infected. Fastening the gall bladder to the abdominal wall and putting in a drainage tube restores its size, relieves the infection, and it functionates properly. Of course in the presence of carcinoma or any malignant trouble, where the gall bladder is completely destroyed, it is well enough to remove it. To illustrate that the gall bladder is very important, or its function is important, it often happens that where the gall bladder has lost its function, a diverticulum is formed—Nature here is trying to remedy the defect. Numbers of these cases have been observed. I myself noticed a large diverticulum after the destruction of the gall bladder in a case in which I had to reopen the abdomen—a diverticulum had formed and nature was trying to compensate for the destroyed gall bladder.

R. B. Hall, Cincinnati: I believe the value of drainage of the gall bladder in cholecystitis without gall stones is not appreciated by the profession at large and by all operators. The difficulty of diagnosis of conditions without gall stones is always present, and the mistake of opening an abdomen, believing that you have gall stones, is often made. In my own work I have been greatly chagrined by the mistake of opening an abdomen not to find gall stones, and yet I found a diseased gall bladder and established drainage, and I relieved the patient from a condition of complete invalidism to perfect health by simply draining the gall bladder, and that encouraged me to make more mistakes along that line. In other words, if the condition justifies an operation for gall bladder disease and you don't find the gall stones, you should drain. We ought to drain to save them from having gall stones, to restore them to health, and to save them this suffering. And I believe in many cases if the drainage was established early, instead of this long period of invalidism, we would be doing our patients a great deal of good. While you get great satisfaction in restoring your patients to health, you get just as great satisfaction where you cure them from their cholecystitis.

Now, the question again of cancer of the gall bladder and at the head of the pancreas in these old neglected cases of gall stones, should not be lost sight of. I think that is a question which should always be considered. Many times you know the patient has gall stones and yet they are suffering so little, you advise them not to be operated upon. I think the question of a later cancer in these cases should not be lost sight of. I was among the first to point out the probable causal relation between neglected gall stones and cancer in a paper read at St. Louis before the Mississippi Valley Medical Association in 1880, and while at that time the paper was largely discussed, every man who took part in it ridiculed the possibility of gall stones causing cancer in this region. And now they all recognize the probability of cancer developing in neglected cases of gall stones. Whether or not it has a causal relation is a question open for debate.

Of course, in dealing with conditions of stone in the common duct and cases of contracted gall bladder, that brings up the whole subject of the difficulty sometimes encountered in these operations, and as suggested by Dr. Reed, the possibil-

ity of anastomosis of the gall bladder with the intestine in cases where there has been a long standing stone in the common duct—the removal of the stone leading to cicatricial contraction and narrowing of the duct with later return of the trouble—if you would make a primary operation for the anastomosis and short circuit the bile into the intestine you would relieve the patient. You will find the technique is to be worked out in the future—whether it is to be done as a primary operation or whether it is to be reserved for secondary operation. I have on two occasions done a primary operation, but on account of the long standing jaundice preceding the operation—when I could not positively locate a stone in the common duct but found it in the cystic duct, yet I felt certain that after removing the stone from the cystic duct that I was not going to relieve my patient. And if I did the ordinary operation of stitching the gall bladder to the abdominal wall I would have a permanent fistula, and I must come back and do an anastomosis later on. So why not do it now? Those patients do not know it.

I think Ralston gives gall stones as a cause of cancer as four per cent. There is one thing in connection with cancer in this situation that occurred to me when Dr. Ricketts spoke of the test meal. Now the purpose of the test meal was a little different, but the test meal, in these cases where we wish to know whether the trouble in this upper right quadrant has become malignant—implantation of cancer upon the cholecystitis—is valueless for operative purposes. Now, while I do not want to decry these test meals as a means of diagnosis of carcinoma in these cases, yet I think the test meal is not of any value, especially for purposes of early diagnosis.

What has been said about insufficient removal of the stones is also important, and yet if one will take the trouble when he comes to examination of the stones, and even before removing them, to run the finger through the foramen of Winslow, down over the common duct, and run it up around the hepatic duct as well as the cystic duct—and remember that the stones may be found in the common duct, the hepatic duct and the cystic duct, as well as in all three combined—you may find them present if there be this combination in addition to stones in the bladder. I remember of seeing a case of this kind at the Mayo clinic recently—it was not a case of my own—and their method of dealing with it was to use four drains; one in the cystic duct, one in the hepatic duct, one in the common duct, and a general drain from without.

C. M. Smith, Toledo: There is one point, gentlemen, in connection with cholecystotomy upon these distended gall bladders and in cases of ptosis that I would like to mention. I refer to the point of attachment in doing a cholecystotomy. It would seem scarcely necessary to call your attention to this matter, but within the last year and a half I have been called upon to reopen two cases in which cholecystotomy had been previously done, and in both of them the gall bladder had been attached so low down that as contraction of the gall bladder ensued, the patient suffered intensely and continuously from contrac-

tion, because of the low attachment. I think in both of these cases cholecystotomy had been done owing to a mistaken diagnosis, because in one the gall bladder had been attached in the median line, and the other in the region of the appendix. You can easily imagine how these patients suffered and how a secondary operation became necessary.

Dr. Warner, Columbus: There is one point that I think is very important, and that is some of the cases of cholecystitis occur without gall stones. We have all observed that, and yet there is one point that has not been elaborated by any one who has spoken on this subject that, it seems to me, is very important, that we may know whether we have a cholecystitis or not. Of course, if there is cholecystitis, the gall bladder needs to be drained, whether there are gall stones or not. Dr. Hall spoke of opening the gall bladder many times and finding stones when you could not find them before opening the gall bladder. But there is one thing, it seems to me, that is important in this connection, to know whether there is occasion to open it in addition to the stones. Usually we are able to find the stones first by emptying the gall bladder, taking a little time to carefully empty it. If we simply palpate the bladder the stones may be overlooked, but if we only take a little time we will find them. But even though we did not, if there be cholecystitis present, calling for drainage, there are certain conditions that are important and not spoken of, and that is the color of the gall bladder. You take a case of cholecystitis and you find that it calls for drainage in the absence of stones, you will find the color changed from the normal bluish tinge to a whitish gray, or a color of the intestines. If you find the gall bladder of a bluish tint you may make up your mind that there is no cholecystitis, and consequently does not need opening, except there be stones present.

Operating in the acute stage I think most surgeons have come to regard as not undesirable if one has the opportunity of operating early. For instance, in jaundice it has so often been urged not to operate, yet I think now it is the practice of many of the best operators to disregard this, provided the jaundice has not been in existence long. It is not the presence of the jaundice that makes the danger, but it is the changes which are produced by its long existence. I was glad to hear Dr. Gillette urge against cholecystectomy, and it seems to me that while there are cases that call for cholecystectomy, that this is going to be more and more confined to cases of gangrene of the gall bladder, for even though the gall bladder is very small, indeed, it may become of the greatest practical benefit subsequently, in case there is disturbance of the common duct in the way of gangrene, so that you will have some tissue in which to build up the new channels. So cholecystectomy ought to go more and more out of style and be reserved only in cases of gangrene of the gall bladder.

Dr. Means, Columbus: You will pardon me for expressing a satisfaction at the statements made here by Dr. Hall in referring to drainage of the gall bladder. It has been perhaps ten years ago that I read a paper before the Amer-

ican Medical Association on this subject, and advocated the efficacy of drainage in the treatment of gall bladder trouble, and my experience has been similar to that since that time, and now to hear those who have had even wider experience expressing their confidence I can hardly, as I say, refrain from expressing my satisfaction. The matter of drainage, however, I think should be confined particularly to a diseased gall bladder. It is very easy to aspirate a gall bladder and ascertain the character of the bile, and if it shows a degenerative change, which it often does in these cases of cholecystitis, then the gall bladder should be drained. And again it assists materially in palpating the gall bladder, as suggested by Dr. Warner as to whether there may be any small calculi. I was particularly interested in the discussion of cholecystectomy. My experience in gall bladder surgery has led me to do more cholecystectomies now than I did formerly, and if my experience continues as favorable, I don't know but what I shall do more of them in the future. I can recall cases now that had I made a cholecystectomy I am satisfied the patients would have been better off. True cholecystectomy is confined to the gall bladder that is diseased. We cannot confine that, however, to the gangrenous gall bladder, or the suppurative gall bladder, for we frequently meet with gall bladders that are diseased beyond restoration, where the mucosa is ulcerated and destroyed, the walls thickened, and there can be only one purpose in leaving them, and that is for inserting a tube and leaving it that will possibly serve in the end as drainage. I can't see why a gall bladder of that character should be left.

Now, as to the result of these cholecystectomies, in watching my cases pretty carefully I have failed to find these intestinal disturbances suggested by Dr. Reed. There is one prominent case here in the city—a business man of prominence, on whom I did a cholecystectomy some eighteen months ago, and prior to that time he had suffered a great deal, even unto death almost. A cholecystectomy was made, and today he is the picture of health, without any intestinal disturbance. In this case there were adhesions even to the extent of involving the pyloric end of the stomach; their removal I think relieved the intestinal or gastric disturbances. Taking into consideration the number of cases I have had in the last five years I believe that I can state confidently that the cases of cholecystectomy have gotten along quite as well as those cases where I have drained. I have had to do two or three secondary operations which I believe would have been unnecessary had I done a cholecystectomy in the first place.

Dr. Sutton, Zanesville: In connection with this discussion it occurred to me that I would like to report or mention a very unusual case which I have recently run across in my practice. Some two or three months ago a patient, perhaps thirty-five or forty years of age, was brought into the hospital from a neighboring community, some seventy-five miles away, from the hills of Guernsey, and she gave a history of having had frequent severe attacks of pain in the region of the umbilicus, and upon one occasion had had a

severe attack of what the doctor told her was a peritonitis, which, after a long siege of illness, she had recovered from, and she felt that there was another attack approaching, and she was persuaded by her husband to come to the hospital at Zanesville. Upon examination I found a distinct tumor in the region just a little to the left of the umbilicus. It seemed to be about the size of a small hen egg. I kept her there for several days under observation. She was very much exhausted, had great depression, almost amounting to melancholia, and her face showed great distress. So, after having kept her there for several days, I concluded to operate to see what the trouble was. I wanted to do the operation under cocaine, but she refused. So she was given an anesthetic, and an incision was made, and what I supposed to be and what I had diagnosed before the incision was made out to be an omental cyst, and this cyst immediately went to pieces, its walls collapsed, and an ounce and a half of a yellowish fluid was quickly mooned up, and an attempt made to remove the fragile walls. In removing the walls I was anxious to see the nature of it and tried to make up my mind what it was that had developed there. I traced a pedicle to the head of the pancreas, where the common bile duct enters. This must have been, I thought, a congenital abnormally misplaced gall bladder, for I investigated, but could find no gall bladder. The incision was closed up, the operation only lasted a few minutes; no thought of any danger. I felt sure she would recover, although her condition was one of extreme exhaustion from apparently no good cause. She gradually failed and died some four or five days after operation. Postmortem was not permitted. So far as my observation goes, I have not heard of such a case as this, and I was anxious to know if any of you gentlemen ever had any like cases.

Dr. Bowers: I wish to speak of one condition which I have seen four cases of—two in the last year and two a couple of years ago—and which I think we should take note of, showing that we must do an early operation if we expect results. That is, in those cases in which we have a large single stone impacted in the cystic duct. Two years ago I saw one, a large tumor of the gall bladder, and we drained it and found a single stone. The gall bladder contained fluid. We put in drainage, and nature did the rest. The second I saw on a Tuesday and advised immediate operation; suggested there was a stone impacted that should be drained immediately. But they did not consent for forty-eight hours. A post-mortem was granted, and we found a single stone impacted in the cystic duct, and the gall bladder contained a pint of fluid. The one I saw six months ago was diagnosed as appendicitis. All the symptoms characteristic of this trouble were present in that region. I made my incision in the region of the appendix, but found my trouble was with the gall bladder, and opened and drained it. Found one cone-shaped stone impacted in the cystic duct. The other I saw recently. The gall bladder was all gangrenous, and she died in a few hours. The points of diagnosis are these: Sudden cessation of pain in the region of the gall bladder and a rapid enlargement of the gall

bladder, pushed down into the groin; increase of temperature; exhaustion that you see in those cases of strangulation of the bowel. It requires prompt action, and I think those cases need special watching and to be drained early. It is interference with the circulation that causes all the trouble.

Dr. Ricketts: Just a few words. The Mayos have referred to a section near the common duct and pancreatic opening as the septic area. The object of my paper was to call your attention to the nervous area—that we find a class of cases in which they lack nerve supply. This gall bladder, eight weeks after it was opened, was like a dish rag—had no contractility to it. And this condition I call ptosis. Not many years ago the subject of the gall bladder in the State Medical Association was rather hard sledding, and I couldn't help but think of the difference now as compared with its discussion then. The condition, as I said, is simply one of faulty mechanics, and I want to lay stress upon the fact that we can have this with or without infection, especially in those cases in years gone by, in which after the abdomen was opened we were chagrined not to find the stones; but we are now learning that there were other things demanding drainage of the gall bladder aside from infection itself.

THE DIAGNOSIS OF TUMORS OF THE SPINAL CORD.

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[Read before the Ohio State Medical Association.]

Intra-spinal tumors, often loosely called tumors of the spinal cord, may be divided into extradural, intradural and intramedullary growths.

While tumors of the brain are much more common than tumors of the cranial meninges, the reverse is true with the spinal growths, where the meninges are much more often the seat of the growth than is the cord itself.

The most frequent primary new growth in the cord itself is a glioma, located most often in the cervical or dorsal region. Then, too, we may have central gliomatous degeneration, with cavity formation. Gliomata and gliosarcomata, which are either circumscribed or may extend throughout the entire spinal cord, even to the bulb, are often seen. Of the other frequent new growths in the cord substance we have the tubercle, gum-mata and sarcoma. Almost always the intra-

medullary tumors produce fewer suggestive symptoms than meningeal tumors.

Slowly-growing tumors in the cord substance may cause no functional disturbance, as they simply displace the nerve fibres and do not destroy them. Other growths in the cord substance may cause this or that motor or sensory disturbance, according to which cord path is affected.

Thus we may have symptoms produced strikingly like tabes, combined system disease, lateral sclerosis, anterior poliomyelitis, neuritis, syringomyelia, transverse myelitis or Brown-Sequard's syndrome.

As a rule, intramedullary tumors are not preceded by a stage of radiating pain, but pain may be seen later in the disease, while partial sensory paralysis is often observed, especially when a glioma or gliomatosis simultaneously causes central cavity formation.

With tumors in the cord substance we may have, however, radiating pain due to intraspinal irritation of sensory pain tracts before their destruction. Why there is not always such an irritation we do not know.

On account of their more practical importance we shall chiefly consider the meningeal tumors, as neoplasms of the spinal cord have merely an anatomical, although important, diagnostic interest.

The most common meningeal or extramedullary tumors are sarcoma, fibroma, endothelioma and myxoma. Schlesinger found the growth to be a gum-mata twenty-eight times out of four hundred tumors of the cord.

There are ten malignant growths to one benign. Sarcomata, especially of the meninges, are relatively benign, as the pia forms a barrier to the involvement of the cord.

Single tumors are chiefly found on the posterior or lateral surface in the dorsal region of the cord, and, according to statistics, are about twice as frequently intradural as extradural. The intradural growths are often encapsulated and are usually easily separated from cord and meninges.

The paramount question for us is how can we diagnose and remove these circumscribed extramedullary tumors.

I will here cite very briefly the essential features of two cases of tumor of the cord occurring in my own practice.

First Case. Woman, 54 years old, non-syphilitic. Had a tumor of the ovary removed eight months ago, which proved microscopically to be a fibroid. Has lately been in perfect health and fleshier than ever before.

Twenty-six days ago was suddenly seized with pain in the left side in the region of the seventh, eighth and ninth ribs. The pain was a dull ache with sharp stabbing paroxysms and all pain was worse at night, when it was almost unbearable. Motion or respiration had no effect on pain. Soon after the onset of pain the patient became obstinately constipated for the first time in her life. Pain after four weeks also radiated to right side at about the same level.

Examination at this time showed viscera normal. Deep, superficial and pupillary reflexes normal. Tenderness over nerve points of the eighth and ninth interspaces, both sides. Fifteen days later was again seen, when she reported that even in spite of strong anodynes she had almost unbearable pain since I saw her and that it was almost impossible to secure a bowel movement.

At this time examination failed to show any changes in the reflexes. Spine showed no deformity, fixation or tenderness, except for sensitiveness over the seventh, eighth, ninth and tenth ribs, on both sides. There was no sensory disturbance. Lymph glands and spleen not enlarged.

Two days later patient in walking, noticed sensation as if walking on cotton. Feet felt numb and there was loss of power in the legs. Examination showed from knees down motion normal with some areas of loss of sensation and delayed sensation below the knees. Tenderness over large nerve trunks of legs. No change in heat and cold sensation except over anesthetic areas. Above knees motion and sensation impaired to lower abdominal region—areas of anesthesia and loss of power. Knee jerks and plantar reflexes very much exaggerated. Retention of urine and feces.

The next day there was complete sensory and motor paralysis below a line drawn around body two inches below umbilicus, with bladder and intestinal paralysis. Knee jerks and plantar reflexes absent. All reflexes, sensation and motion normal in upper part of body. No sign of growth or deformity over spine. Temperature normal. Pain in sides persisted. Sensory paralysis gradually extended upward to level of mammæ. Edema of legs and back developed. Dyspnea occurred. Two days before death she developed double hydrothorax and about the same time had numbness in arms, but no sensory or motor paralysis.

While the diagnosis of tumor of the cord was made early and an operation advised, as two prominent surgeons advised against operation, nothing was done and patient died two and one-half months from the onset of pain and a month after the paralysis.

Autopsy showed in posterior mediastinum ex-

tending from the fifth dorsal vertebra to the eleventh a firm whitish gray tumor, slightly nodular growing around the bodies of the vertebra and encapsulating them as it were. The dura was found infiltrated with the growth and on the anterior side of the cord opposite the eleventh dorsal vertebra the cord was compressed by an intradural tumor the size of a small chestnut. All other organs were normal.

Microscopic examination by Dr. W. T. Howard showed both growths to be typical small cell lymphosarcomas. Dura and pia were both greatly thickened by growth.

The cord showed scattered areas of round cell infiltration. The cord showed marked evidence of compression, and both fibres and ganglion cells were degenerated over large areas.

Second Case. Male, aged 64, had syphilitic infection thirty-five years ago. Patient for some time has had recurring accumulations of hemorrhagic fluid in left pleural cavity, for which he had been repeatedly tapped. He had pain over left side of chest and abdomen for a year previously. Burning sensation over entire left side of abdomen. Felt some pain shoot down the legs occasionally. Felt weak in his legs, but could walk normally. Physical examination shows the physical signs of exudative pleurisy in left chest cavity with spots of dullness that on tapping do not contain fluid. Abdominal organs normal, pupillary and other reflexes and sensation normal. Slight enlargement of post-cervical glands. Urine negative. Temperature always normal. Pleural fluid sterile, no tubercle bacilli found, cells almost all small mononuclear leucocytes. Guinea-pig inoculation with pleural fluid, negative results. Sputum negative for tubercle bacilli. Blood examination showed white cells (12800) relatively and absolutely increased. Differential white blood count showed about normal relation.

Jarring of body causes severe pain in lower lumbar regions. Two weeks later his legs became much weaker and the seat of a great deal of sharp pain. Knee jerks were present but much diminished. Babinski reflex present. Legs felt numb and sensation was dulled over both legs. Bowels became distended with gas. Patient was put on an antisiphilitic treatment to see whether process could be due to his old syphilis, but a diagnosis of interthoracic tumor with a metastases in spinal canal seemed most probable. No results were obtained from the energetic use of injections of mercury and K. I. internally.

Ten days later sensory and motor paralysis was found to be almost complete. Pain in legs severe. A very feeble knee jerk could be got. Babinski

reflex present on both sides. Retention of urine, incontinence of stool. A tumor like an enlarged kidney could be felt in the left side.

The next day legs were completely paralyzed. Knee jerks gone. Spasmodic involuntary contraction of both legs present. Complete anesthesia to groins. Patient died about two months after being first seen.

Autopsy showed carcinoma of left lung, probably originating from alveolar epithelium. There were metastases to, or extensions into pleura, pericardium, heart, liver, kidneys, perinephritis fat, spleen and spinal cord. Chronic fibrous pleurisy. Healed tuberculous foci in left lung. Congestion of viscera, atheroma of aorta. Meckel's diverticulum present.

Spinal Cord. Epidural fat is markedly increased throughout the dorsal and lumbar regions. Dura nowhere adherent to the bone. Beginning opposite the tenth dorsal vertebra and extending down to the twelfth dorsal vertebra is a firm, gray mass 6 cm. long by 1 cm. thick lying upon the left side of the cord posteriorly and laterally. As the dura is slit open the growth is found to be wholly in or upon it, not having involved the cord itself.

Just below, in the situation of the lumbar enlargement is another gray, white hard nodule 3 cm. long by 1.5 cm. wide, seemingly in the substance of the cord itself. On section this is seen to be mainly in or upon the pia, stretching over both sides of the mid line posteriorly and not dipping down deep enough to obliterate any of the gray matter.

Microscopic Examination. Left lung most extensively involved by a neoplastic growth. The tumor has completely obliterated the architecture of the lung where it is present. It consists of stroma and cells, and also shows large areas of necrosis.

The stroma varies in appearance in different parts of the tumor. As a rule, the stroma is free from cell infiltration, though some areas show moderate number of small round cells with some eosinophiles and around the areas of necrosis there is a zone of polymorphonuclear leucocytes. At the boundary between the main tumor mass and the remaining lung tissue is a broad band of fibrous tissue with round cells, into which tumor cells are invading, while between the lung and tumor nodules found in the pleura no such demarcation is found.

The tumor cells are pleomorphic. The prevailing appearance is a polygonal, often flattened out, cell, with abundant bright staining cytoplasm and a moderately vesicular nucleus containing

distinct nucleolus. The cell membrane is distinct and the type of cell definitely epithelial. In certain areas, generally where the stroma is not very abundant, the cells are more even in outline, often oval, while the cytoplasm stains less deeply and the type of cell approaches more nearly the endothelial. Mitotic figures are moderate in number, though there are numerous large cells with double or irregular nuclei having undergone a typical division.

No direct transition between alveolar cells and tumor cells can be established, though in some places the cells are arranged around spaces like altered alveoli.

The bronchial mucosa, where it is present, is normal. The tumor, has, however, invaded close to the bronchial walls, and into some of the bronchial mucous glands.

Cord. Dura shows a large tumor nodule similar to those found elsewhere. Sections show no invasion of the pia or cord proper. The fibres of the cord show slight irregularly placed parenchymatous degeneration.

The diagnosis of extramedullary tumors of the spinal cord is based on symptoms that vary according to the tracts of cord affected and level of lesion.

Nerve root symptoms, especially from posterior roots, slowly develop and severe and persistent pain occurs. This pain may be vague at first, then radiating, neuralgic-like, boring or burning. Often at first it is unilateral, but later it is bilateral. We also have, as an early condition often, paresthesia, hyperesthesia, muscle cramps and contractures. There is at first spasticity with exaggeration of reflexes below the lesion and usually Babinski's, Oppenheim's and Gordon's reflexes are present on one or both sides.

There may be dullness over certain vertebrae. Anesthesia and paralysis may occur as nerve root symptoms, but only after an extensive lesion, owing to the fact that any given area of the skin is supplied by more than one nerve root. Herpes may occur, as well as other trophic disturbances.

Schlesinger and Oppenheim have reported edema in region supplied by compressed nerve roots.

While this neuralgic stage is very characteristic of meningeal tumors, still it may be wanting, as F. Schultz and others have shown.

Cord symptoms may not occur for some years after the first root symptoms. (Nine years after in Woolsey's case.)

Later, often more or less suddenly, the symptoms of an irritative lesion are replaced by those of destructive lesion, and we have flaccid para-

plegias, atrophy of the muscles with more or less reaction of degeneration, loss of all reflexes below the lesion, and more or less complete paralysis of all kinds of sensation. There may be paraplegia dolorosa and anesthesia dolorosa. Nerve control of sphincters may be lost as well as the sexual function.

Brown-Sequard's paralysis occasionally occurs. There is a zone of hyperesthesia above the anesthetic line. Girdle sensation may be marked. As Gerhardt, Senator, Brissaud and others have shown, there may be conservation or exaggerated reflexes with a complete transverse lesion of the cord, but as a rule reflexes are lost below the lesion, due to changes in the spinal cells beneath the lesion as Brissaud, Grasset and Pierret have shown.

When the lesion involves the posterior horn of the gray matter we get the syringomyelic sensory dissociation. As Dejerine has shown, you may get in lesions of the gray substance of the cord, segmentary anesthesia which may be mistaken for hysterical anesthesia.

Pronounced paraplegic symptoms point to involvement of the cord itself by an intramedullary growth or by compression of the cord from an extramedullary tumor. These compression symptoms are the same as seen with other transverse lesions of the cord, namely, spastic paralysis, muscular rigidity and exaggerated reflexes, together with slight, but increasing sensory disturbances, often more pronounced on one side and often with vesicle and rectal symptoms.

While tumor of the cord may present the usual picture of a transverse cord lesion, yet certain peculiarities such as the asymmetry of the symptoms from pressure of growth on one side of the cord, or the complete Brown-Sequard syndrome are almost characteristic and rarely occur with myelitis and other lesions.

Sudden favorable or unfavorable variations in the symptoms may be due to edema, engorgement or hemorrhages that may suddenly occur, and be as rapidly absorbed.

The mode of progress is to certain degree characteristic, for if one finds after repeated examinations, signs of slow progression of the spinal lesion upwards, especially of the anesthesia and muscular paralysis, it is suggestive of tumor especially of a glioma.

The diagnosis of localized meningeal tumors of the cord depends chiefly on the presence of slowly increasing sensory and motor paralysis of the spinal type. This paralysis while increasing in intensity extends but slowly upward to involve at most one segment higher.

We have usually a neuralgic-like prodromal stage of varying duration with pain corresponding to the upper limit of the paralysis.

In differential diagnosis we must first consider meningo-myelitis which can readily be excluded, for as a rule it shows a progressive course only when due to syphilis, and with it we get evidence of involvement of the brain, cranial nerves and cerebral meninges. Spinal syphilitic meningo-myelitis is not as a rule so limited to one level.

Chronic pachymeningitis or the pachymeningitis hypertrophica cervicalis that Charcot described may by a localized thickening of the dura produce a form of tumor which produces the same effect as seen in other dural growths. Pachymeningitis usually runs a much longer course than most tumors of the spinal meninges, especially when syphilitic. Then, too, the hypertrophic pachymeningitis is usually cervical, while most tumors are in the dorsal region.

Pure myelitis is usually not painful, while tumors of the cord are but rarely painless. Then, too, the cause of a myelitis may often be found.

Multiple sclerosis, combined system disease and lateral sclerosis often simulate a tumor, but the absence of the pronounced sensory disturbances and the fixed limit at a certain level, usually in the dorsal region, the cranial manifestations and history will differentiate them.

In intramedullary growths the prodromal neuralgic-like pain is absent, while sensory disturbances of various types are often seen, especially when a glioma, or gliomatous degeneration at the same time causes a cavity formation.

But as in these intramedullary growths we may have considerable pain and thus the diagnosis is rendered difficult, yet it is somewhat facilitated by the fact that extramedullary circumscribed tumors are vastly more numerous than intramedullary ones. The most common form of the latter being tubercle which is usually associated with tuberculosis of other organs.

Disease of the vertebral column, such as Pott's, new growths and an eroding aneurysm may produce similar symptoms to intraspinal growths by also compressing the cord and nerve roots. They are usually to be recognized by the X-ray, the history, the temperature record, the spinal fixation, the tenderness or prominence of certain vertebrae, the pain on movement of spine, occurring before the nerve root symptoms, as well as their individually peculiar symptoms.

Among the symptoms peculiar to certain conditions we may have albumosuria with myeloma evidence of other growths with carcinoma, sarcoma, etc. Pulsation and bruit with aneurysm

kyphosis and other signs of tuberculosis with compression due to Potts' disease.

The syringomyelic syndrome and spinal curvature may be seen in a cervical glioma.

Lumbar puncture may aid us by enabling us to diagnose condition from the cell findings in fluid.

Oppenheim reports several cases of arachnitis simplex, arachnitis serosa, and especially of cases of arachnitis fibrosa with many adhesions, that produced symptoms of extramedullary tumors due to the inflammation of the pressure from the accumulation of spinal fluid at a certain level.

Krause and Oppenheim have reported cases of meningitis serosa spinalis that closely simulated tumor of the cord.

Schlesinger and Spiller have both described cases of intradural spinal cysts, which Oppenheim thinks may have been cases of meningitis serosa spinalis. These closely resembled tumors of the spinal meninges. These cysts or accumulations of fluid are of the greatest practical value, inasmuch as they may spontaneously disappear. Most have been situated in the dorsal and cervical region and if diagnosis were reasonably certain they might be tapped, but it is probable a laminectomy would be preferable.

Oppenheim strongly urges the performance of an exploratory operation in cases where symptoms point strongly to tumor, as it is so difficult often to differentiate vertebral disease, intramedullary growths, meningeal tumors, and meningitis serosa spinalis.

He says that exploratory operation should always include opening the dura for extramedullary as intradural tumors may often be overlooked unless the dura is opened.

Exploratory laminectomy in cases where no extramedullary process is found, but where an intramedullary lesion is present, does no harm, as Stertz, Putman, Warren and Oppenheim have shown.

In justification of an exploratory laminectomy where a spinal tumor or chronic meningitis are in question, Horsley says that "young subjects at any rate improve very much after laminectomy and thorough washing out of the theca-spinalis with a sublimate lotion."

An early diagnosis with surgical interference shows 50 per cent. of recoveries; with the more complete and earlier diagnosis (as most of the fatalities now occur from shock and meningitis), we may hope for better results when cases are diagnosed earlier and when surgeons have more experience in this particular field.

One must not forget, as Schlesinger has point-

ed out, that the growths are multiple in about 30 per cent of the cases.

Time will not permit, nor would it be profitable to you for me to deal with the signs and symptoms that are peculiar to growths at different levels which enable us to determine the exact localization of tumors of the cord.

This may be better understood by referring to the splendid diagrams and tables of Sherrington, Head, Wichmann, Edinger, Seiffer, Starr, Gowers, Kocher, and Testut.

One should remember that inflammatory edema, stasis of cerebrospinal fluid (arachnitis simplex or arachnitis serosa) above or below tumor may cause signs and symptoms that will lead to the localization of the growth at the wrong level.

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ULCERATIVE AND PURULENT CYSTITIS

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[Read before the Ohio State Medical Association.]

What condition is more harassing to the sufferer than an intractable and seemingly incurable cystitis? The first stage, as I shall call it, in women, usually follows some post-puerperal state and is easily curable. Those cases developing and passing into the second stage are more persistent and can be *usually* cured by proper treatment, by patient, careful work on the part of both the physician and the patient. In the third class or state are those patients in which we think a cure is impossible and often give up the case in disgust.

It is not my purpose to discuss the different methods of treatment and the different causes and forms of the disease. I have been working much along the lines suggested to me by that peer of all kidney and bladder surgeons, Professor Israel, of Berlin, Germany. He said, "We do not drain the bladder enough."

An interesting discussion of this plan of treatment appeared in the Journal of the American Medical Association, December 21, 1907, by Guy L. Hunner, of Johns Hopkins, and his experience has been very gratifying in six reported cases. He places his patients in a permanent bath, with continuous irrigation through a supra-pubic or vaginal fistula. I have treated five cases by a modification of this method, except one case which was treated in the continuous bath. In four of my cases the continuous bath was not re-

quired, although more or less continuous irrigation of boracic acid solution was used. A very small catheter was placed in the supra-pubic fistula previously made and held in position by adhesive tape. A catheter was also placed in the urethra and held in position by tape, the end of the catheter being connected to a long tube emptying into a pan. A large porcelain irrigator, slightly elevated above the level of the pelvis, was connected to the small catheter in the supra-pubic fistula, and in this way a continuous irrigation was carried on. The water was heated by a gas burner. It is surprising now soon my patients became tolerant to these catheters, when before making the fistula a catheter could not be passed per urethram without causing great pain, and a return flow catheter with continuous irrigation could not be borne at all. I believe, however, before this radical method is used that all other means should be exhausted, such as self-retaining, return flowing catheters, with continuous irrigation, etc.

This means is especially adapted to purulent cystitis, either accompanied with pyelitis or not.

I believe any seemingly incurable benign cystitis will yield by this treatment where other methods have failed. Its praiseworthy features are numerous. It soon makes the patient comfortable. It saves repeated irrigations and instillations, which are agonizing and nerve shocking to the patient. The force of the stream is regulated by the height of the supply tank, and the force can be modified by the patient at any time by gently squeezing the supply tube to the catheter. In cases of extraordinarily sensitive urethra, the outflowing catheter can be placed in the supra-pubic fistula if desired.

I did this in several of my cases for from four to seven days and then inserted a catheter in the urethra. The inflow has, of course, to be regulated according to the sensitiveness of the bladder, and can also be nicely regulated by a clamp or artery forceps. In a highly inflamed and ulcerated bladder the retention catheter will add to the ulceration by the pressure from the same. At any rate, a retention catheter should never be left in the bladder except when irrigation is being made, and I think an ordinary catheter is much better, because safer, and held in position by tape and adhesive plaster to prevent its coming out. Fortunately, this method is not often necessary, and any one familiar with bladder work knows how a vesico-fistula will place the bladder at rest.

That violent spasm of the sphincter and its attendant vesical wave will soon be relieved after

the opening has been made. I made a supra-pubic fistula in all my cases, although a vesico-vaginal can be made if desired.

No use for me to comment on the necessity for a proper diagnosis and urinalysis. The cystoscope was used in making the diagnosis in all my cases, as well as catheterization of the ureters in two of the cases. As the five cases were very similar except in minor urinary findings, I only take up your time to report one in detail.

Case report. November 26, 1907. Mrs. K., Age, fifty-four years.

History.—Father died at seventy years of age with Bright's disease. Mother died at sixty-six years of age from a tumor. One sister living, fifty-seven years of age. No brothers or sisters dead. One daughter, twenty-three years of age. No other children or miscarriages. Menopause normal, two years ago. Frequent and painful urination began in March, 1907, gradually increasing in intensity and severity, until the condition was almost unendurable. Urination of a few drops every few minutes of what appeared to be pure pus, followed by a violent spasm of the sphincter and bladder wall.

History of pain on right side and description simulated the passage of a renal calculus in May, 1907. Chills, fever, night sweats, loss of flesh, etc.

URINALYSIS—CHEMIC QUALITATIVE.

Only the important normal and pathological elements investigated.

Color.—Pale, clouded amber.

Odor.—Decomposed.

Consistence.—Density increased.

Quantity.—Twenty-four hours, 8 to 16 ounces.

Reaction.—Acid, strong.

Specific Gravity.—1021 at 60° F.

Sediment.—Mucin, pus evident.

Negative.—Proteids: Albumose, fibrin, hemoglobin. Carbohydrates: Pentose. Fats: Oxalates, calcium and ammonium carbonate, biliary acids and pigments.

Present.—Proteids: Serum-albumin, serum-globulin (good quantity), nucleo-albumin. Carbohydrates: Glucose (fair amount). Pus, the sulphates (performed), indican, earthy phosphates.

Diminished.—Urea, uric acid and compounds (urates).

Excess.—Alkaline phosphates.

MICROSCOPIC.

Centrifugated and uncentrifugated sediment.

Pus cells in masses; bladder epithelium in large numbers; renal and ureter epithelia in small numbers.

Few uric acid crystals; patches of bladder mucosa; pus casts in fair numbers.

Blood cells in small numbers; few broad and narrow hyaline casts; mucin corpuscles; bacteria in good numbers.

BACTERIOLOGIC.

B. coli communis in large numbers; zoogloea masses of small non-pathologic cocci.

A small capsule bearing diplococcus not identified without cultures.

Acid fast bacilli not demonstrated in this specimen.

CYSTOSCOPIC.

Bladder mucosa violently inflamed and ulcerated. Pus coming from each kidney.

URINALYSIS.

Comments on Same.—The higher specific gravity and strong acid reaction would indicate that some of this pus at least came from the kidney or kidneys.

The small number of renal cells, with other conditions present, as small amount of blood, lead us to exclude stone. X-ray examination verified this. Some albumin being present and the presence of casts indicated a sub-acute nephritis. The pus and colon bacilli, with the large number of bladder cells present, would indicate primarily a bladder inflammation, which in turn affected the kidneys, with an invasion of the tubules and glomeruli.

Twenty-five months of centrifugated sediment failed to show any tubercle bacilli.

Supra-pubic fistula made at Toledo Hospital December 2, 1907. Nearly continuous irrigation used, as described above. Six weeks' treatment. Condition greatly improved and patient comfortable and gaining rapidly. The end results of the other cases were as satisfactory.

Urotropin was given. Quantity of urine increased to about forty-five ounces, nearly free from pus, and urination painless.

Two cases along this line are under my care at Lucas County Hospital at present. Improvement is continuous.

DISCUSSION.

A. B. Walker, Canton: I would like to ask the doctor how the treatment works in cases of cystitis from a large prostate?

M. L. Heidingsfeld, Cincinnati: I am sure that this section owes Dr. Harpster a debt of gratitude for his excellent and highly instructive paper. It marks a very great advance in what has thus far been presented on this subject. Anybody who has had experience in this class of cases must realize how unsatisfactory the character of the treatment of these cases has been in the past, and must hail with great satisfaction a method which has given the essayist such excellent results.

C. M. Harpster, Toledo: In answer to Dr. Walker's question, I have never used the treatment in cases of cystitis due primarily to a large prostate. I think the prostate should be removed either supra-pubically or perineally. I had a case at the Toledo Hospital where I removed the prostate and irrigated the bladder on account of an intense cystitis.

"SOME ESSENTIALS IN THE TREATMENT OF DISEASES OF THE SKIN, WITH SPECIAL REFERENCE TO THE TEACHINGS OF LASSAR."

LEO REICH, M. D.,
Cleveland.

[Read before the Ohio State Medical Association.]

On December 22, 1907, at the age of 58, Professor Oscar Lassar, a master in the science and art of our profession, died a premature death in the city of Berlin. He was a successful physician and brilliant teacher. As a dermatologist he had an international reputation. Students and physicians from all over the world flocked to his clinic. Money played no role with him to equip his clinic and hospital with the latest and most modern improvements. This clinic he founded and supported from his own private purse. He organized the German Society for Public Baths, which has enabled every dweller in larger cities to take a shower bath, hot and cold water, for about ten pfenings (about two cents). He was the apostle of hygiene of the skin and constantly preached and taught prophylaxis of skin affections. His monograph, "Die Kulturaufgabe der Volksbäder" (Berlin, 1889,) is well known to most dermatologists.

As one of his American pupils, I may be pardoned for inscribing this brief and very incomplete contribution to his memory.

ECZEMA. The clinical picture of the eczematous eruptions vary, and the therapy, therefore, must be directed accordingly, as there can be no uniform method or uniform medication for all the eczemas. The etiological factor should always be our guide. If an exact diagnosis is necessary in other diseases, much more so is this the case in cutaneous affections.

A professional eczema, for instance, brought on by the physician on his hands by the frequent use of carbolic acid, creolin or lysol, must be judged differently than the impetigenous, scratching eczema of the baby. There is the intertrigo of the infant, due mainly to the uncleanness of diapers. Dermatitis of the machinist who handles certain injurious oils; eczema with deep excoria-

tions on the hands of the photographer or the washerwoman due to keeping their hands in the water for hours at the time—all these are classed under "eczema," and yet the mode of treatment must be vastly different. The eczema from croton oil and from pediculosis—they surely are not the same, and the treatment cannot be the same. It is therefore obligatory upon the physician to retain if possible the original character of the eczematous eruption, and not permit it to degenerate into a more serious or infectious stage, but protect it at once against such invasions that may undermine the deeper layers of the skin.

Let each practitioner bear in mind that unlike some internal diseases, diseases of the skin have a tendency for self-spreading instead of self-limiting, and he must never be timid in asking questions of the patient even at the risk of appearing as a sort of inquisitor-general.

Cosmetics and hair dyes have worked havoc among the people in Germany and France, and no doubt in this country also, and certain medicated soaps, advertised for skin diseases of young and old, are often the means of producing skin irritations, which again are treated, but never cured, by the wonder-working ointment put on the market just for such simple-minded folk, and the result is a chronic eczema with which they may be burdened for years.

It was Lassar of Berlin who preached time and again that people with skin trouble deserve and require all the advantages of a strictly clinical treatment. It is not necessary that the patient should stay in the clinic; a clinical-ambulatory course, under the supervision of the dermatologist suffices.

If a patient comes to us with an acute dermatitis brought on by external irritants, the first step should be to cleanse thoroughly, but gently, the area of inflammation with lukewarm water, rendered bland and soothing by adding a few pounds of bran, or camomile tea, which is slightly aseptic and even antiseptic. Next in order comes a cooling compress of sulphate of zinc solution, 1,0 : 1000,0, three times a day; or aquæ aluminii subacetatis.

This procedure is highly recommended by Lassar, who claims that the inflamed area requires the same treatment as does the inflamed eye. Close on this follows the "dry treatment" composed of plain dusting powders: Oxide of zinc, talcum, rice, corn or wheat flour. If the itching is incessant, menthol, 10%, could be added. Excellent results may also be obtained by applying to the erythematous area a 60% zinc-oil paste (zinc oxid 40,0; ol. olivæ 60,0), or the zinc-amy-

lum-vaselin paste. The immediate relief it gives the patient, who claims that he is almost burning up, is marvelous. The stage of eczema where there is serous exudation, nothing will do better than by applying the above-mentioned powders, or mopping it with an alcoholic lotion to which has been added a 2% salicylic acid, or menthol, which may burn for a minute or two, but will eventually have a cooling and soothing effect, followed again by the application of plenty of powder. In other words, we must never allow the transudate to spread. Moreover, these powders or pastes will serve as a protecting layer over the epidermis and exclude the air and relieve the itching. Children and grown-ups will stop scratching, and this in itself is a great step toward preventing the millions of bacteria which nestle beneath the finger nails to invade the field and spread the disease over new areas.

STATUS VESICULOSUM. That stage of the disease where we find little bullæ with serous exudation nothing, in my experience, will do better service than Lassar's paste; thickly and plentifully applied it will absorb all the oozing and will in a short time restore the cuticle to its healthy state. In eczema scroti et vulvæ, I have found that Lassar's paste, with the alternate application (at night when the itch is most unbearable) of a 2% salicylic acid alcoholic lotion, will give immediate and permanent relief. In these troubles the physician must be persistent and heroic in his treatment; he must never permit these conditions to degenerate and become chronic, for nothing is more stubborn to cure than the thickened and infiltrated skin with cracks and rhagades. In the parasitic form of eczema, I add 10% to 20% of precipitated or sublimated sulphur to the paste. In deeper infiltration of the skin, Lassar had great faith in tar preparations, especially the oil of birch. In those ugly cases (especially in children) where the face is one mass of crusts, with inflamed basis and oozing of thick, creamy pus, Lassar was in the habit of prescribing this formula: R. Ol. rusci, sulfuris sublimati āā 15,0; vaselini, saponis domestici, aa 30,0; cretæ albæ 10,0, mft. ungt. which is thickly smeared over the face, powdered and covered over with a bandage.

Credit is due Lassar for breaking loose from the old belief of Hebra and his school, that cutaneous affections must not be touched by water. He, on the contrary, advocated bathing. He treated over 12,000 cases with baths with good results, especially eczema vesiculosum where water was forbidden by most dermatologists. Lassar also deserves the credit of priority for recommending tar baths in those conditions where the

skin became callous and infiltrated or scaly. He even tested tar-baths on patients with eczema vesiculosum and madidans, two of the most irritable and inflamed conditions of the skin. (O. Lassar, "Die Bäderbehandlung der eczema" Therapeutische Monatshefte, May, 1892). He also found that even the application of chrysarobin and peeling-pastes—most irritating medicaments—could be well administered without any ill effect while the patient was under water, and remove them again after the bath.

"Water alone," emphasizes Lassar, "will clean the affected skin of exudates, scabs and crusts, and remove the debris of decomposed ointments, pastes, plasters and oils, and thereby free the skin of irritability and infectious agents." And just in those skin eruptions where water was prohibited by all dermatologists, Lassar found it of excellent service in relieving the tension, the itching and the pain, and at the same time having a drying effect upon the skin surface. It can never be repeated too often that salves should be freshly prepared and the physician be familiar with the nature of the ingredients and the exact amount. Salicylic acid, resorcin, naphthol, chrysarobin, bichlorid of mercury and the tar preparations are by no means indifferent medicaments, and the delicacy of the skin (especially in young children), and the idiosyncrasy of the patients must always be taken into consideration; and if not judiciously used they may add fuel to the fire. And, I believe, it is opportune here to say a word in regard to the ready-made ointment which is forced on us, claiming to heal all diseases of the skin: There can be no one ointment that, at the same time, is protective, soothing, stimulating, antiparasitic, astringent, antipruritic, irritating and destructive. The drugs for skin diseases need not be numerous, and much can be accomplished with a chosen few, but it is all in the assortment and the mixing. And with the painter, who was asked how he mixed his wonderful colors, I also would say (in regard to ointments), "with brains, sir." And each physician, I trust, has brains enough to know how to compound a formula for the essentials of skin diseases, and not depend on Tom, Dick and Harry, who are impertinent enough to arrogate to themselves knowledge which they imagine the average physician does not possess.

PSORIASIS. This most stubborn of skin affections presents often a kaleidoscopic picture. The patches may vary from the size of a pinhead to the palm of the hand, and cover any part of or the whole body. Psoriasis has been the stumbling block to many a practitioner for it stimulates

some other forms of skin diseases, especially so psoriasis syphilitica, and is given to relapses.

Not long ago I was present at a medical meeting where a case was diagnosed "psoriasis syphilitica" for no other reason but because the knees and elbows showed hardly any signs of the lesion, forgetting, however, that in the first attack of psoriasis universalis just these typical places may be skipped over. The patient himself was sure he never had secondary manifestations of lues, although he did have about twelve years before, multiple lesions on his penis, which, in all likelihood, were chancroids.

As to the treatment of psoriasis, Lassar agreed with the German and Austrian authors that it is not purely a constitutional disease. Bulkley, of New York, on the other hand, goes to the other extreme and puts some of his most obstinate cases on an absolutely vegetable diet, and gives them strong nitric acid internally, four drops, well diluted after each meal, with hardly any local treatment, "except some immollient application" and "the improvement increases as the amount of nitric acid is increased."

The prognosis of psoriasis "is good in any one attack, but bad for the disease as a whole" (Crocker). Hot water and soap must be used diligently with a stiff brush so as to scrub off the crusts, scales and ash-like debris that pile up on the skin, before resorting to any of the strong medicaments. Chrysarobin is a well-known specific and combines well with traumatocin (chrysarobin 5%; traumatocin 45%). In psoriasis universalis, Dreuw's ointment is to be preferred: R. Chrysarobin, acid salicyl, Ol. rusci aa 5,0; sapo viridis vaselin, aa 50,0. This ointment should be applied five days in succession; on the sixth day a warm bath, and the performance is repeated.

The eruption on the scalp is best cleaned with good tar soap followed by an egg shampoo and then Lassar's unguentum rubrum sulphuratum rubbed in the scalp. (R. Hydrargyri sulphurati rubi 1,0; sulfuris sublimati, 24,0; vaselini flavi, 75,0; ol. bergamotte gtt. xxx, m, ft. ungt.) This procedure has done me excellent service.

In 1903 I read in a report from Lassar's clinic where over fifty patients were treated with the new arsenic preparation atoxyl. This powder was dissolved in sterilized water and injected intramuscular (usually in the gluteus) in increased doses, beginning with one grain and stopping with three. Twenty-five to thirty of such injections were sufficient to bring about a complete cure. I followed this treatment, within a month, in two chronic cases with perfect success; no untoward effect from the drug and no relapse since.

Why not try atoxyl in cases where there is doubt between psoriasis and p. syphilitica, inasmuch as atoxyl has so much been lauded of late for syphilis by the French and German schools?

It is Lassar also who speaks highly of atoxyl, in 20% sterilized solutions, a syringe full three times a week, in lichen ruber, supported by a tar treatment; and he it is who recommended arsenic as a specific in *ulcus rodens* (carcinoma Jacob).

ALOPECIA AREATA. Alopecia areata, according to Lassar and other authors is contagious and must receive a heroic antiparasitic treatment, lest alopecia generalis be the result. This, like herpes tonsurans, can be contracted in some of the barber shops, where tools, instruments and towels are not kept in a sanitary condition. That alopecia areata is easily transmitted from person to person, I convinced myself in 1896 in attending Lassar's clinic. A policeman, whose chin had been adorned with a patriarchal beard, dwindled down gradually almost to nothing. His head also showed bald spots. A few days later more policemen came with the same trouble—in all about fifteen—and it proved they all came from the same station where they alternately used the same cot for an occasional rest, thereby infecting one another. The very first one of that number claimed that his trouble began a few days after he had been at a barber shop which was not strictly clean. The following is Lassar's mode of treatment for alopecia areata:

1. Cleanse the scalp with Hebra's soap spirits or tar soap.

2. Rinse the head with a lukewarm water douche followed by cold water. Dry the scalp thoroughly with a rough towel; long hair with hot air or a heated iron comb.

3. Sprinkle the head with a lotion of bichloride of mercury (0.5 : 300.0) and rub it well into the hair follicles.

4. Rub the scalp with this preparation: Naphthol 0.25-0.5, alcohol absolut 200.0, or thymol 0.5, spirit dilut. ad 200.0. After the scalp is dry apply the following ointment: Acid salicyl 1.0, tinct. beonzoes 2.0, ol. provincial, q. s. ad 50.0. This treatment is applied seven days in succession, afterwards only twice or once a week.

In herpes tonsurans, Lassar recommends his unguentum rubrum sulphuratum, followed by resorcin and lanolin, equal parts.

DISCUSSION.

M. L. Heidingsfeld: Dr. Reich's paper should not be passed over without discussion, or at least, not without a tribute to Professor Lassar. His name is a household word with every practicing physician the world over. He is well known on account of the Lassar pastes, which are composed

of equal parts of some solid ingredient and some oil base like vaseline or lard. He has made an imperishable name for himself in dermatology. His Schœl paste is a desquamative agent of great efficiency in cases when it becomes essential to peel off the epidermis, as in molluscum contagiosum and indurated acne. His cinnober salve is very efficacious in various forms of eczema of the scalp, and especially pediculosis. His probably greatest work is in connection with his investigations on syphilis. His early inoculation experiments on apes will be a monument to him as long as dermatology flourishes. He was the most familiar dermatologic character in Europe, and he was pledged to me as a guest of the American Medical Association in 1907, but the Congress in New York made it impossible for him to accept. He told me that if he did not come in 1907 he would come in 1908, but his sudden and unfortunate death precluded his hearty welcome. His name and work need no comment.

Much has been said about atoxyl as an efficient remedy in the treatment of syphilis. We must not be led astray by a remedy of this character. There is only one reliable remedy and that is mercury and its adjuvant, iodide of potash. Atoxyl is not going to replace these time tried and honored remedies, and can only hope to aid their administration in some of the more severe and obstinate cases. I believe that large doses of the insoluble salts meet every requirement, and for the present is our most satisfactory method of treatment.

Leo Reich, Cleveland: I thank my colleagues for their courteous attention and also especially Dr. Heidingsfeld, who, if I am not mistaken, was at the clinic of Lassar when I was there in 1896. I can hardly believe it—he looks so very young today.

TRACHOMA IN ITS SOCIOLOGICAL ASPECT.

CHARLES C. STUART,
Cleveland.

[Read before the Ohio State Medical Association.]

Trachoma has existed as a disease from very early times. It has been noted in Egypt, the forehead of all that is ancient in the early ages. According to Fukala, it was an infliction to many of the Greeks and Romans, and later history in many places brings evidence of its presence.

Egypt suffered from this disease many years before the beginning of the last century, but the entry of Napoleon into that land, followed by the English, was the starting point for a fresh outbreak of the disease, which had heretofore been comparatively quiescent for some time. It seems that the French were infected with it very severely, but did not convey it very extensively; but the English, who followed the French, were

intensely infected and spread the contagion at every place at which they stopped on their homeward trip and then became a nidus for its propagation in their native land. To quote from Boldt's work on trachoma: "During the Napoleonic wars greater bodies of men had been marched up and down, and cast hither and thither throughout Europe, than at any time since the migration of nations and the Crusades. Under the influence of concentration in badly ventilated and filthy buildings, the countless unsanitary conditions of a campaign, its many hardships and irregularities of life, combined with the very lowest level of hygiene at that period, the disease had grown with frightful virulence, baffling all the efforts of the surgeons, and hindering and paralyzing strategic movements."

This describes compactly the conditions prevailing in practically all of the European countries for many years following the Napoleonic invasion of Egypt. The literature of the next fifty years is rich in the narration of the spread of the disease through the various European countries, and they were all of them sufferers to a greater or less extent. That this virulence could not maintain itself is evident to any student of epidemics: there is always a rise and fall. By the latter half of the nineteenth century, the intensity of this disease had worn itself down, but its presence was everywhere; it was and is ubiquitous.

In East Prussia, it had a hold on 3.7% of the total population; in west Prussia 4.5% were affected. Walter of Odessa reported 18 to 19% of all cases of blindness in Russia as due to trachoma; others estimated as high as 30%, and Skrebitzky estimated the number of blind in the Kingdom at 400,000. Finland has more trachoma, according to Hirschberg, than any other country of northern Europe. It had in 1864, 28.7 blind to every 10,000 population; in 1900 this had decreased to 11.9 blind to every 10,000 population; that in its two and one-half million population, 100,000 suffer from trachoma, and 20% of its blind have their affliction due to this cause. From 40 to the 1,000 to 250 to the 1,000 of all eye patients is the report from the Provinces of Russia. In portions of Austria-Hungary, the prevalence is from 10 per 1,000 to 110 per 1,000; Feuer finding in 1895 that in Transleithania in the entire population, trachoma existed to the extent of 11.2 per thousand.

In Bulgaria, Trantas estimated the proportion of trachoma at 150 to 180 per 1,000. Van Milligen's statistics at this point are interesting; they are as follows:

In Bulgaria, 440 per 1,000 of the population.
In Roumania, 680 per 1,000 of the population.
In Greece, 450 per 1,000 of the population.
In Turkey, 600 per 1,000 of the population.
In Italy it plays a greater part than malaria.

According to Sydney Stephenson the number of trachoma patients in England averaged 6; in Scotland, 9; and in Ireland, 26.4 per 1,000 of all eye patients. Hariman and other writers regard the disease as rare in England, per se, but through immigration and infection from this immigration the percentages are made high. They speak of England as being the "filter bed" for the immigration to this country, especially of the Jews coming from Russia.

In Palestine, trachoma is a national scourge.

In Canton, the proportion is as high as 700 per 1,000 of population, and in Tokio, 140. Onisi states that 250 per 1,000 eye cases are trachomatous.

Why are these proportions mentioned? To show the conditions in the countries from whence comes our immigration. Trachoma is a contagious disease, of probably bacterial origin, insidious in its inception, chronic in nature. The contagion must come through contact. It is a filth disease; it is most pronounced among the poor and in unsanitary and in unhygienic surroundings.

The total immigration for 1907 was...1,285,349
The total immigration for 1906 was...1,100,735
The total immigration for 1905 was...1,026,499

Increase of 1907 over 1906 is 17%.

Increase of 1907 over 1905 more than 25%.

In 1880.

17,267 from Austria-Hungary.
84,638 from German Empire.
39,186 from Sweden.
12,354 from Italy.
7,191 from Russia.
59,454 from England.
71,603 from Ireland.

In 1890.

56,199 from Austria-Hungary.
92,427 from Germany.
52,003 from Italy.
35,598 from Russia.
57,020 from England.
53,024 from Ireland.

In 1900.

114,847 from Austria-Hungary.
18,507 from Germany.
100,135 from Italy.
90,787 from Russia.
9,951 from England.
35,730 from Ireland.

In 1907.

338,452 came from Austria-Hungary.

285,731 came from Italy. (Sicily and Sardinia.)

258,943 came from Russia (including Finland).

37,807 came from Germany.

56,637 came from England.

34,530 came from Ireland.

These immigrants are coming to us from the countries showing now the highest percentages of trachoma. Up to 1897 but little was done by our government in the restriction or detailed supervision of this immigration, especially in the weeding out of the unhealthy. At this time attention began to be paid to this matter, the work being placed in the service of the Department of Public Health and Marine Hospital Service. In 1901 the authorities became aware of the fact that intending immigrants were attempting to pass into the United States by way of Canada, and a rigid inspection was therefore established along all our frontier gateways. At this point, it is interesting to note, as described by Dr. Byers of Montreal, that as a result of this guard put along the Canadian frontiers, the number of trachoma patients in the Royal Victoria Hospital rose from 10 and 12 per 1,000 patients in 1900 and 1901, to 32 per 1,000 in 1902 and 1903. In the Montreal General Hospital the percentage had been from 18 to 20 per 1,000 in 1899, 1900 and 1901, and rose to 70 and 80 per 1,000 in 1902 and 1903.

Under act of Congress taking effect March 3, 1903, Section 2 "directs the expulsion of all persons afflicted with a loathsome or contagious disease." Under ruling of the authorities, acute but not chronic trachoma has been placed under this classification. Working under this ruling the examiners are instructed to regard as trachoma "any case wherein the conjunctiva presents firm, well-marked granulations which do not have a tendency to disappear when the case is placed in hygienic surroundings a few days, or does not yield rapidly to ordinary treatment, even though there be no evidence of active inflammation at the time of the examination, nor appreciable discharge, nor as yet signs of degeneration or destructive processes. Eager, in the Marine Hospital Service in foreign ports, and others speak of the attempts being made to pass trachomatous patients; that this class of people have been taught how to instill adrenalin in the eyes just before examination in order to qualify, and this has been done on board ship just before going through Ellis Island.

So far as I can learn, there has been no separation of trachoma from the other diseases which are classified as "loathsome and contagious" in

the yearly report of deportations, but under this heading the number has arisen from 1,560 in 1904, to 2,198 in 1905, 2,273 in 1906, and 3,822 in 1907. According to Dr. Stoner, much credit is due the Ophthalmologists of the country, and especially to those connected with the Ophthalmic Section of the New York Academy of Medicine for insisting that trachoma in its acute stages is a contagious disease.

I wish to pass now to the consideration of the question "Is trachoma increasing in this country?" A study of some of the statistics of some of the large dispensaries reveals a few facts of interest. There is probably no greater opportunity for the study of trachoma than at the New York Eye and Ear Infirmary.

This institution has a yearly average for the past six years of 31,214 of eye cases of all kinds, and the average of trachoma for this period is 5.5%; 1903 gave the highest percentage, while 1907 has the lowest, namely, 4.6%.

In 1901, Wilder of Chicago prepared and read before the Illinois State Medical Society a paper on the "Prevalence of Trachoma in Illinois." In this he presents reports from eight ophthalmic hospitals for the year 1900, all save one being in New York City (the outside one being Mass. Char. Eye and Ear Infirmary). Their percentage of trachoma varies from .4 of 1% in the Mass. Char. Eye and Ear Infirmary to 4.9% at the New York Eye and Ear Infirmary. In the ten previous years the Illinois Eye and Ear Infirmary had an average varying from 5.39 in 1891 to 8.49% in 1893, and a ten-year average of 6.57%. The percentage of cases of trachoma in this institution for 1903-04 (the last report), is 5.4%.

The Baltimore Eye and Ear Hospital for the past seven years has averaged 4,543 cases per year, and the percentage for trachoma in this time is 1.13%. For 1906-07 their yearly average has been .9 of 1%.

In our own city of Cleveland, I have reviewed the statistics of the eye clinic of Lakeside Hospital Dispensary for ten years back and find the highest average of trachoma patients to have been in 1902, when it was 4.3-10% (including under this heading, not only those entered as trachoma, but also all cases of pannus, entropion and trichiasis), and the lowest year is 1907, when it was 1.6-10% and a ten-year average of 1,057 cases, with a percentage over this entire period of 2.4-10%.

From these statistics, it is my belief that we must conclude that, with the possible exception of local foci of infection such as were described

by Wilder, trachoma is not at present making headway in spite of the large increase of immigration. If anything is to be drawn from these statistics, it is that the disease is not only held back to its own level, but actually being pushed down. I am myself satisfied that our ability to do this, in spite of this immense immigration is due to the great work of the Marine Hospital Service.

Scholtz, in a recent article on the geographic distribution of trachoma in Hungary, very naively says: "The disease is quite common in immigrants returning from America." The great need of today is to know the genesis of the disease. In the laboratory and pathological work of our specialty, discovery of the etiology of this disease so that we may separate it from similar affections, is the greatest desideratum.

Malaria was long known and well treated before its genetic organism was separated and its life history elaborated. Through the brilliant work of Schaudin, we are coming to know the etiology of syphilis, a disease which all scientists thought had a microbic origin, and only recently has its origin been revealed. Great work, untiring, ceaseless and voluminous is being done to discover the origin of trachoma. It is felt to be bacterial or of a protozoan nature. Pfeiffer and Kuhnt have thought that possibly the bacterial cause of trachoma might be ultra-microscopic and worked along a line of experiments to try out this point; their conclusions are that it is not ultra-microscopic.

Mueller of Vienna has described at various times an organism which he has considered to be etiologic for trachoma; his work has been voluminous, but is not accepted yet as final. Hess and Roemer, working on the transplantation of trachoma to monkeys, were not able to find the bacillus of Mueller or any other bacillus.

In a very recent article by Major Elliott, working in southern India, on observations of a number of lachrymal sacs removed, is inclined to the belief, from the microscopic examination of the structures, that trachoma is responsible for a number of these conditions of the sacs.

The entire world is infected with this contagion; its inception is insidious, its progress very mild, its course is chronic, but it deprives every individual that it touches, of some distinct advantages. It is almost entirely limited to the poor, those who can least afford the time used in attempts at cure. Its sequelæ are notorious, from the annoying, irritating and ever-present entropion and trichiasis to corneal lesions with their resultant losses of vision, to blindness.

From Dr. Brown of our section, you learn

that of the number admitted to the Institution for the Blind in this state, 521 in ten years, 6.7% of these cases are blind from trachoma. From Dr. Bailey's examination of the inmates of the Kentucky institution for the education of the blind, one learns that 4.5% of the blind are there from trachoma; this percentage exceeded only by that of purulent ophthalmia, which is 26.3%.

To quote from Hansell, "when we realize that among the causes of blindness, trachoma stands third in the list, yielding precedence to only congenital malformations and purulent ophthalmia, one may begin to grasp its social and pecuniary significance."

DISCUSSION.

W. H. Snyder, Toledo: Inasmuch as I had a paper before the general session on this exact subject yesterday with the opposite conclusion, that trachoma is on the increase, and vastly so, I think it is entirely from the point of view one gets of this subject. In talking with men who live in the smaller towns of the state, not Cleveland, but those men, for instance, in Springfield and Dayton, as a rule they do not find it on the increase. But in Cleveland some of the men I have talked to think it is on the increase. It is on the increase in Illinois in the steel manufacturing towns, and in Toledo. The reason that many do not see it is that the cases do not apply to the hospitals because they fear being deported. I see a good many cases in the foreign population, and I have several interpreters, boys and girls, and if you have ever been unfortunate enough to treat a patient through an interpreter you will ask where they got the disease and they will talk twenty minutes, and then say they "don't know." I got a boy once to come to the office after the patient had gone, and he said the patient wouldn't tell where he got it for fear of being deported. We have quite an active immigration inspector and he has deported several. There has been considerable talk about it, and these Hungarian and Bulgarian boys absolutely refuse to give any information as to its sources. I believe if Dr. Stuart had opportunity to get behind the scenes he would change his opinion. They do not go to the hospitals. We have had but two in the Toledo hospitals this year. I know of at least fifty that I could put my hands on tomorrow. These cases have come from Canada, and in almost every instance some one else in the family has contracted it. One little girl who used to interpret with these cases for me has a bad case which she got from a boarder in the house. If you are able to get their confidence you may find out something about where they got it, but as soon as you go in as a company surgeon, or go to the hospital and ask where they got it, they close up and will not answer. They are fearful of being deported.

I will relate an experience we had in a factory in Toledo. It was known that trachoma was vastly on the increase, and it was found they were nearly all moulders, and were chiefly Hungarians. It was found that these men were the only men in the factory who used a big tank to wash in.

All the others had separate basins or washed at home. The result was there was so much trachoma among this class of men, and the company had to discharge many of them before they could stop it. This shows it is on the increase. Knowing how careless these people are, it would be natural to suppose that it would be on the increase, just as it is.

I do not give the Marine Hospital Service much credit for stopping trachoma, because they do not make a very careful examination, and they only pick out the flagrant so-called acute cases. If you had watched them in Philadelphia and New York as I have you would see that the young surgeon looks at these cases and once in a while picks out a man, he pulls down a lid and goes right on very rapidly, and finally you ask him, "Can you always tell these cases?" He will say, "O yes, nearly always." "They never get by him." It is a fact that we cannot tell these cases without studying them; at least I can't always tell whether they are follicular conjunctivitis or trachoma. How these men get this God-given knowledge to tell in a couple of seconds what this is I don't see, and I don't believe they can do it from this simple inspection. However, there is a very strict inspection and that is the steamship inspection. There is a fine if they bring them over, and they have to carry them back. Now every case is examined by a man abroad before he is allowed to buy a ticket. As a rule that is a stiff inspection. They are more familiar with it than we are. Sixty per cent of the blindness in Europe is from trachoma. They are able to get a man for a very small sum to make expert inspections. A man in this country would charge a great deal more. I believe from talking with some of the steamship and Marine Hospital Service men that the good results are due to the law being passed and the strict inspection the steamship companies make themselves abroad.

Dr. Stuart: I have listened to this paper with much interest. I was not aware that Dr. Snyder had read a paper yesterday on the opposite aspect of this question. However, in my experience trachoma has increased to a very great degree in Cleveland in the past ten years. Whether or not I have just entered the field is a question, but I find there are many more cases coming to my clinic at the dispensary than ever before, and the same is true in my private practice. I believe I have treated more trachoma in the last year than in the five years previous, and I am sorry to say they are not wholly among the foreign element. Those in the dispensary are chiefly among the foreign element, but in my private practice there have been sporadic cases located in almost every section of the city. They are chiefly among the better paid laboring classes where they have good homes, and are not neglected children.

I have been unable to trace the source of infection. Five or six of them seem to have been infected at one focus, but of this I am not certain. It seems to me that trachoma is on the increase, in spite of the rigid inspection that the government and steamship companies are doing. In my mind our municipal laws should be made so that this communicable disease should be quarantined the same as smallpox or diphtheria, and kept

there until a thorough course of treatment could be obtained.

Mark D. Stevenson, Akron: I had the opportunity of observing some of the hasty examinations made abroad often by non-medical untrained men. It is often difficult for a trained observer to differentiate these cases from other forms of conjunctivitis so that large numbers of infected immigrants are unquestionably entering this country every year. Although many cases are detected, provisions should be made for better trained examiners who could give more time to the work. Every class of passengers who are aliens should be examined. Many who do not come in steerage escape. In my locality trachoma is on the increase, due to the large increase in the foreign population in neighboring cities. Some method of quarantine or method to enforce treatment in these cases should be considered. Treatment is necessarily painful and protracted. The usually ignorant patient not careful and cleanly, is a constant source of contagion and usually ceases treatment long before his eyes are healthy. Some method to enforce treatment should be instituted.

C. L. Minor, Springfield: In reference to the increase of trachoma, I am of the opinion that it depends upon the locality in which one lives. Living in one of those small country towns, that Dr. Snyder referred to, namely—Springfield—I have seen only eight cases of trachoma in as many years, and not one of these acute. After having my attention called to the topic of this paper, and Dr. Snyder's, before the general meeting, a week ago, I took occasion to ask the other men doing special work in our city, concerning the increase of trachoma, and the answer was the same as mine given above.

We live in a town with almost 10,000 laborers, practically all of whom are skilled, with little or no foreign population. The latter fact may account for the absence of acute trachoma in our midst.

At present, on account of railroad construction, we have probably two hundred foreign laborers in our midst, and I shall watch with a great amount of interest the development, or non-development of acute trachoma.

The presence of trachoma, acute or chronic, in a foreign population, is of chief interest to us on account of its communication to native-born residents, in whom the disease seems to run a much more violent course.

C. F. Clark: The importance of this subject has been forced upon me in St. Francis Hospital, where I have seen many of these cases during the past twenty-four years, mostly among foreigners—first among the Irish twenty years ago, then among the Italians, and now among the various representatives of the Austrian Empire. We have it there all the time in every possible degree. In preventing the communication of it to others there is one suggestion that has been of value. I do not know where I got it. Those who leave the hospital with some trachoma still remaining carry with them a tube of bichloride ointment 1 to 8000 or 10000, or 1-5000 if the eyes are not sensitive, and use it at night. You will find occasionally a patient in the active stage whose

eyes will be almost cured by this treatment. It is not difficult to get them to fill the eyes up with this ointment, and it will often serve to prevent the spread of the contagion when it is necessary for the patients to return home before the cure is complete.

Horace Bonner, Dayton: It seems to me that this is a serious question at the present time. I live in one of the country towns, according to Dr. Snyder's classification. At the same time it is not quite so countrified as Springfield, and yet has not quite so select a population, if we take Dr. Minor's word for it. We have quite a foreign population, mostly Hungarians and Poles, and unquestionably in the last seven or eight or perhaps ten years I have seen a large increase in trachoma. I see many more cases than I formerly did, and in my experience I think that probably fourteen out of fifteen cases that I see are in the foreign population. Now this matter is going to become still more serious because this foreign population is here, their children are coming into our public schools, and soon there is going to be trouble if the matter is not taken care of. It is a serious matter and certainly demands our consideration.

A. R. Baker, Cleveland: I was very much interested in the discussion. My observation coincides very closely as far as Cleveland is concerned with that of the essayist. When I went to Cleveland it was a large country village, and we scarcely had any cases of trachoma. Indeed I remember searching carefully to get a few cases to show my classes. For several years I cultivated the acquaintance of an old Irishman who had a case of pannus that I showed the students from time to time. Then we began to have a foreign population—Russian Jews—and then it seemed to me our clinic was made up almost entirely of trachoma. They crowded everything else out; so much so that in a paper read several years ago I advocated separate schools for trachoma patients. But for some reason or other during the last four or five years they gradually diminished in number, and in the past season I have seen few cases either at the dispensary or at St. Alexis Hospital. I don't think I have operated upon more than three cases with the roller forceps this winter. So that undoubtedly it is decreasing rapidly in Cleveland. I should like to hear the report from the charity hospital, because a good many Russians have gone over in that community.

That there are points of local infection even in the country districts I know. For a number of years I was puzzled about the number of cases that came from Ashtabula county, so much so that I went to the trouble to investigate the matter at one time. I found it was the custom of the farmers to go up into Michigan in the lumber woods in the winter time, and in the camps there they met a number of French Canadians that had trachoma, and carried it back to Ohio, and I still meet an occasional case from Ashtabula county where the infection came from

Michigan and Canada. So that it is more than a question entirely of the foreign population. I believe, as has been said, that inspection has caused this good result, and we as oculists ought to emphasize its importance and aid the government in this investigation. No one can tell trachoma by simply looking at the patient, although he may make a good guess, but imagine that the inspection on the other side is much more thorough, and that is where the great good is accomplished.

Victor Ray, Cincinnati: In the Ophthalmic Hospital we have about five thousand cases a year. In the last two or three years we have had from 50 to 75 per cent more cases of trachoma. I attribute it largely to the increase in the foreign population; particularly amongst the Russian and Polish Jews. They work in the sweatshops where the chances for infection are favorable. The treatment of these cases, particularly in regard to inspection in the schools, has been very rigid. A great deal of difficulty has been experienced in differentiating between follicular conjunctivitis and trachoma. The general practitioner as a rule is not able to differentiate. In fact, many of us find it difficult except after quite a long course of treatment to make the differentiation. Our experience is that there has been a decided increase in the total number of cases of trachoma, and I have no doubt that is the case in the other clinics in Cincinnati.

C. C. Stuart, Cleveland (closing): I have a clinic that lies on the edge of the Russian Jewish settlement, and while we have a number coming to the clinic, and we see a number of trachomas, practically all are old cases and the numbers are not increasing in proportion to the population. I am inclined to think from Dr. Snyder's remarks the inspection in Canada may not be as exacting as in other ports. From personal observation I considered that the examination at Ellis Island was quite competent. However, the inspectors themselves said that in former times adrenalin was used to prevent traces of trachoma, and the recommendation of the Commissioner General for the last year was that certain inspectors be employed to go aboard ship and travel back and forth with the idea of sorting out not only these cases, but others, and catch them at quarantine. They could observe them for some time.

The whole question is wrapped up in not knowing what the bacterial origin of the disease is. It is hard to differentiate between acute and chronic trachoma, and that is what they have to do. The government still allows the importation of chronic cases, and I have no doubt these cases may take on exacerbations that make them acute at times and help to spread the disease after they are in. It is a very hard matter to make up statistics and get any general result, except from public statistics, and as near as I can judge from the statistics from the great seaboard cities and some inland cities trachoma is not on the increase. There are local foci of infection that cloud a broad view of the situation.

OBSTETRICS AND PEDIATRICS—THEIR GROWING RELATION.

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 PARK L. MYERS, M. D.,
 Toledo.
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[Read before the Ohio State Medical Association.]

However long it may have been practiced on the plains of Mars, we of earth are only entering the age of irrigation.

The reports of the government reclamation service are just coming out, telling of the wonders of vegetable growth following a controlled flood of water on the erstwhile desert.

And, though the Martians may scan our globe with their glasses, they may not be able to detect our scattered and puny dams, reservoirs and canals. But some day, when millions of acres burst into summer blossom and leaf rhythmically with our seasons, the Martians will notice the changing earth tints and know that back of this changing shade and floral iridescence must be a flood of water, guided by intelligence.

Who can fail to note in the last semi-century a marvelous "bringing forth" in every latitude of the human mind?

The desert is blossoming as the rose. And on every hand the budding ideas are bursting into bloom and growth with ultra-tropical luxuriance.

Need there be long search to find the cause of this sudden growth? Not for the man of medicine; not for the biologist, I believe. He may rationally assume that, as the initial growth in fact of all animal and vegetable structure is hydrolysis, so the cause of this marvelous idea growth is an unusual irrigation. The evidence is clear that the cranial plains of men are being irrigated as never before. Nor is there any question of its physiological character. It is not a case of hydrocephalus.

Our instinct for the diagnostic method will help us to decide the nature of the irrigating fluid.

Thus, we cannot trace its source to any new found social order or form of government, for it is springing up with equal luxuriance in many countries and forcing its way into the most exclusive societies. Nor can it be shown to come from any rush of law or religion, for great laws and beautiful systems of religion—essentially as ours of today—have from time to time in the last 6000 years flooded the minds of men, but never has there been produced such stable verdure as found today.

Nor yet traced to the transfiguring power of melody or to the arts of form or color; for

music, even as weird as modern ragtime or ataxic Salomé, has soothed the brute or lured to love or driven to suicide since history began; and painting and sculpture have erected their monuments in the past to such heights that the artist dreams of today barely reach them; but no enduring and self-perpetuating mind developments came from them.

Look today where many of the most stupendous art creations of earth are found, dating from two to sixty centuries, and you find them surrounded by desert brains.

There is but one flood that has come coincidentally, rhythmically with this growth of mental flora, and that, the flood of facts from the discovery and orderly study of the phenomena of physical nature—the discovery of the nature of earth substance and the erection of the sciences of chemistry, physics and botany, physiology, geology and astronomy. These are the great irrigating plants. Their construction was started barely 100 years ago. For seventy-five years only a trickle of the precious moisture reached here and there a mind. Today a vast and inexhaustible stream is within the reach of all who will absorb.

So, to recapitulate, the presence of this new flood of science, the steadily increasing number of enthusiastic users and the coincident appearance of a vast and augmenting growth of new ideas must drive to the diagnosis that science—not society, government, law, religion or art—is the source of modern civilized progress.

It is often said that but one department of nature remains today untouched and unchanged amidst this rush of developing science—and that, babies and their cultural propagation.

I will not stop to find causes for this, though they can be found. Suffice to say that man has builded his baby nest on such high ground and made it so inaccessible and has such lofty notions as to the sacredness of its environment that it will take a long pipe and not a little pressure before much common sense moisture will be forced into his incubating chamber.

Evidently, however, the soil has gotten a little damp in the vicinity of baby and parent stem—in the vicinity of pediatrics and obstetrics. If anything were needed to prove this growth it is a clamor for room. For more room. They who were once happy at the feet of medicine and surgery in a trundle bed now want a polished brass twin bed or separate rooms!

There can scarcely be said to have been a science of obstetrics before the nineteenth century.

So mixed were its obvious facts with astrology, divinations, incantations and general superstitions that the mass could be called a monstrosity, or at best a false mole of knowledge.

Weighted with the theologian's conception that impregnation was a special act of divine dispensation—that the moment of contact of each and every sperm cell and ova was the occasion of a thrill that reached to the throne of the Most Omnipotent, who immediately dispatched a soul to inhabit the earthly cell—little wonder that that structure was regarded as sacred, as under special divine care, and that man or woman was presumptuous to think any human care needed, any improvement in God's plan possible.

Even today we are not rid of the idea that most of the disagreeables that come to the expectant mother is her lot—her preassigned lot, to be accepted, not avoided or doctored. Little wonder, then, that supplication and incantation should have been relied upon to influence God to finish His creative act gently, and that the most effective uterine dilator was prayer.

I sometimes wonder how long it would have taken woman—who, at least after maternity, is more practical than man—to have gotten away from the notions of special divinity in the conception and confinement acts if she had been left to herself and not influenced by the subtle theological notions of nulliparous man.

But woman, like the mother hen in the rural dooryard, fastened so long by the foot to man's theological stake, has come to regard with unresisting awe—aye, pious resignation—her restricting bands and limited orbit.

The first great upheaval in the "perfectly ordered sphere" of reproduction came with the Chamberlain forceps.

Think of the shock to the dogma-saving law of fore-ordination!

Up to this time there had been a few notable men who tried to gather, practice and preach rules for assisting childbirth. But, as amongst many of our humbler classes today, a sister's pity or an old mother's fortitude was the usual accompaniment to an oftentimes agony and a sometimes awful death.

If death came, it was one's fate to die. And the child, conceived always in sin, predestined to never breathe, *had* to die a-bornin'—till forceps came. It is not strange that the forceps method was kept a profound family secret for more than 100 years. The world was not yet moist with science, and the ruling powers of the seventeenth century civilization would have probably destroyed the instruments and wiped out the human

users, even as they burned Servetus and his books at the stake.

The second great dogma quake occurred when Dr. James Y. Simpson administered chloroform to break the iron law that woman shall bring forth in pain.

Before the forceps, the assistant at labor was usually and literally an "obstetrix," a woman who "stood before" and did little but sympathize.

After the forceps there came to be the obstetrician—the accoucheur, or man midwife—who "stood before" and often saved pain and life.

With chloroform the obstetrician's art mounted to a humane science, a life saving, pain destroying, dogma killing, glorious triumph of humane sympathy over pitiful, pitiless ignorance.

Like as a hen gathereth her chickens so instinctively woman has cared for her children.

A father pitied his children occasionally, but the mother furnished all the other ingredients to care taking.

David, when his child lay sick, put sackcloth and ashes on himself, but it was Mrs. David that watched through the day and night, sending it not to the contagion hospital, and poulticed it and nursed it till its spirit fled.

The mother's instinct, aided or retarded by some legendary knowledge, was once the only director of babyhood and childhood.

The world plains were not ready for the evolution of child study and child sanitation till science irrigation was well advanced. The crop was absolutely needed and must be garnered regardless of how it came or grew.

So obstetrics, the crop gathering, must long antedate the less evident and seemingly unimportant matters of seed selection and early growth.

But knowledge of earth elements came about 125 years ago, and in fifty years the truths of biology and embryology began to pile up.

The old adage was found far too short—"As the twig is bent the tree inclines." It soon came to be, "As the cellular protoplasm is molecularly arranged, so the ultimate structure is determined."

It dawned as never before that the "child is father to the man" and mother to the woman. And the realization of the importance of commencing at the fountain to clarify the stream caused such rapid accumulation of facts as to child life as to give in a few decades the kindergarten system to pedagogics and pediatrics to medicine.

From ranking, then, as a supplementary subject, to be considered after the abnormalities of labor

and the puerperal infections, it has leaped in twenty-five years to a position at least on a level with obstetrics. And, if it be remembered that with the perfection of the pediatricist's calling—the growing of better men and women—the obstetrician's practice can be wonderfully modified—aye, almost eliminated—while the obstetrician's art, no matter how well perfected, cannot hope to influence the pediatricist's to but a small degree, it can be seen from the standpoint of anthropology that pediatrics is as far ahead of obstetrics as forethought is ahead of afterthought.

One striking phase in the valuation of pediatrics with obstetrics is that obstetrics comes too late in the individual life to effect any permanent improvement so far as the race is concerned. In fact, it may be truthfully said that the obstetric art has led to no small extent to the degeneration of the race. It has made it possible for the abnormal to reproduce the unfit, and these, therefore, again to perpetuate. On the contrary, the pediatricist takes the product at its plastic twig period and feeds and molds the abnormal towards the contour of the normal. It continually builds towards a more perfect adult, from which must come a higher child product.

Pediatrics, then, in a quarter century, cultivated by Jacobi, Rotch, Holt (not to mention some of my hearers), has grown from the position of a dependent nursling of obstetrics to one of worthy, self supporting, dignified independence. And it is not to be wondered at that the fond and handsome mother fails to note the development of her child.

'Twas ever thus. The mother clings to the baby curls, to the kneebreeches, and, bless her old soul, will still call him "Sonny" who stands a giant at her side.

Pediatrics, but yesterday an infant, born to adult obstetrics, is today grown to magnificent manhood, tolerant of mother's hauteur, solicitous for her welfare, ready to condone her middle age nervousness, and anxious to kindly help her to cease her flirtatious escapades with some of her surgical neighbors.

However, I must say that, while pediatrics is inclined to be ever loyal and respectful to mother obstetrics, yet it is probably true that, son like, he thinks of her as old, beyond personal ambition, beyond growth, and, above all, beyond new alliances and creative possibilities.

But I am here to assert that obstetrics as well as pediatrics is still growing, and the relation from now on must be a changing, growing relation between the mother and her first born son.

(For, you know, gynaecology was a fair daughter of obstetrics, and her name should have been "gynetrics," but she was barely fourteen years old when surgery ran away with her, and ever since she has been lost to the family, and it is said that nearly every one of her children look like surgery and make a noise like surgery.)

Already surgery, Alexander-like in world conquering ambition, has made excursions in the realm of obstetrics.

Or, rather, David-like, he has looked down from the housetop and admired the beautiful opportunities in obstetrics and has wooed with commanding and flattering attention, and obstetrics, not being too old to take notice, has stopped and listened. The immaculate surgical raiment has caught her eye; the elaborate antiseptics, the impressive instrumental display, the ever constant homage to him who is "as ready to cut as to eat," and visions of luxurious living and costly raiment have been too great a temptation for Mother Obstetrics, and she has capitulated.

Hence, I see danger ahead as concerns the relations in the obstetric family. I believe that the thinkers of our profession know that obstetrics should not be decoyed from her virtuous home; that obstetrics should never be allowed to lay aside her simple nature garb for any institutional raiment; that surgery should be her ready and ever gallant attendant, never her master. And I believe it is realized that to even a greater extent than either general medicine or pediatrics, the sphere of obstetrics is one of natural philosophy, rather than manual and instrumental technology.

Yet, facts are facts, and the obstetric textbooks of today which are having the largest sale are those which most resemble instrument catalogues, with beauty photographs thrown in to enliven the drowsy student.

Obstetrics needs the strong arm of her blood relations to keep her in the true path. This is no time to desert her, even though she wants to be deserted.

Let her have the honor of precedence in our sectional household. Let us not disturb the fifth commandment.

There is no danger—there should be no danger—in our great democratic profession but that honor will come to whom honor is due. Let the foreign diplomat, with his caste-warped soul, and the petty brained politician at Washington quarrel over precedence around their banquet tables—we know that wherever the man of honor and worth sits, there is the head of the table.

I deplore the growing tendency to the early

establishment of strictly limited specialism. True it is that the growth of ideas is enormous, that the avenues in our own profession have multiplied like the tunnels in catacombed Rome.

It is not reasonable to expect one man to compass all of the minutias of the science and art of medicine. Yet, as sure as the body is one complex whole, every cell marvellously linked to each and every other cell in the body, so sure is it that the most minute and masterful knowledge of one part of medicine will never fit the possessor for the sane and safe care of the living body.

We need—we must have—the expert pathologist, the chemist, the abdominal surgeon, the oculist, the alienist, the specialist, but he should always be grounded upon or subservient to the general practitioner, the general practitioner who is the clearing house, where the over-selfratings of the specialist are corrected.

Brilliant and commendable as his work oftentimes is, do I not state the truth when I say that the most sublime and telling errors made today are made by the cocksure specialist?

Nothing new has been added to the human body in 10,000 years. The results of irrigation science study, with scalpel, test tube and microscope, have been the revealing of the immense number of distinct and separate parts of the human body.

Today, more than ever before, science is observing and recording the facts of mutual interrelation of all these parts—of oneness of the whole, of interdependence, of facial eruption from solar plexus pressure, of gouty great toe from faulty intestinal metabolism, of retinal disturbance from menstrual toxemias.

Surely it is truth that the pediatricist is the best for his little patient, who knows and knows well the facts and practice of child planting, sprouting and harvesting.

And the obstetrician is best for his patient, who can give such care and direction for his charge, when she is of such age that his advice can be effective, that when finally called to "stand before" his patient he can honestly take some credit to himself for the happy conclusion of his tour of duty.

And both should be so well versed in the groundwork of surgery that they will know when they need the surgeon's special dexterities, and not leave the tempting judgment of "when to operate" entirely to the surgical brother.

I plead for a growing, closer relation between the members of the obstetric family, for the sake of the mothers, for the sake of the children.

I do not believe that the fetus and parent sustain a much more elaborate sense communication than do pediculi and the integument, on which they prey.

Yet the fact remains that they are close relatives, because they are made of exactly the same chemical elements; because they partake of each other's physiological and pathological susceptibility; because they have similar cellular instincts (or memories), and, while they should be studied elaborately as to their differences, they should be compared, discussed and practiced together.

EXOPHTHALMIC GOITRE—THE PRESENT STATUS OF THE MEDICAL AND SURGICAL TREATMENT.

FRANK WARNER, M. D.,
Columbus.

(Discussion continued from November number.)

Dr. Sawyer, Cleveland: I wish to discuss this paper because I so radically disagree with its tendency to operation. I feel that the subject is one on which professional opinion is not well established. Dr. Warner has done us a service in bringing the subject before us. I have only time to make certain didactic statements. First of all, the term "exophthalmic goitre" is a misnomer, as the symptoms indicated are both absolutely unnecessary in the disease. So long as it is dominated by this term we fail to recognize the disease. We get the tachycardia when we look for it, and it should be included in the routine examination of every patient that comes to the office. It is far more important than looking at the tongue, and in taking the pulse tremor tachycardia, paroxysmal as well as continual, should be sought for. This was emphasized by Marie in 1898. It is prevalent to a degree of which we have no suspicion until we have performed this routine examination. We will then find a slight degree of exophthalmic goitre present in a number that will astonish us. In the last six hundred cases of routine examinations I counted 337 showing tremor and tachycardia, and most of them a slight degree of the ocular signs and goitre. I do not believe that percentage will be found in every community, nor in every material.

As to the operative procedure, I challenge the statement wherever made, that it is an operation to be spoken of in a general society as an operation of impunity for any but the very skilled surgeon. The Mayos are largely responsible for its use in this country. They had relatively poor results in their first series, and it is not an operation that can be done with safety. We have repeated deaths in Cleveland from it. It is not only the slight, incipient or latent cases I have handled (and they are there by the hundreds, for we are in the goitre belt there), but I have not yet had to advise a single case to have an operation. I know of four cases that have had the operation in the face of negative advice. Two of them are dead, and died immediately on the

operation, and it was not for want of skillful operating. I have had a number of cases also that have come to me with such great enlargement of the thyroid that it produced difficulty in breathing and the patients had been advised to have operation, and there was extreme suffering from the disease. These patients have been treated without operation, and with things Dr. Warner has warned us against, and are well. So are a great many others.

There is just as careful work to be done in the medical treatment of this disease as in typhoid or scarlet fever. Nor is Beebe's serum the only thing. It is valuable, but I think subject to considerable difficulty from the fact that there are strains, and it is difficult to pick out which particular serum to use in a given case. I have used the thyrodoctine of sheep for years, and I know its value and also the antithyroidin of Möbins. They are not specific, but will benefit a vast proportion of the cases. I have seen scores of patients get well without operation. It is a matter of careful medical study to put this treatment to its test.

The essential thing to remember is that this is a vaso-motor disturbance. It means blood pressure change, the beating of the heart, sweating, vomiting, the headache, the mental depression; it gives us psychoses, people practically beside themselves, not responsible for many of the things they do. These all are relieved frequently with this group of measures.

I would also like to emphasize the value the doctor put on rest. Mental worry should be avoided. We know that in some cases where the diagnosis has not been made, in some stress of sickness, sudden death of a member of the family, some shock, there will be a complete collapse of the patient and the full development of thyroid activity at that time. Calm should be secured.

The matter of climate cannot be overlooked, because of the relation between vaso-motor control and the humidity of the climate. The unconscious perspiration going on all the time is lessened if the humidity increases to 90, 95, 100 per cent. You will find these cases are then having their worst days. One individual case will have colic, one headache, one nervous depression and another palpitation of the heart, shaking the bed, to which the patient has taken. All these have the same physical phenomena, the tremor and the ocular signs—all these things will develop on the days of humidity. The hint from this is to send these patients to a dry climate. I have sent them where the humidity is 20 to 30, or even as low as 5, and they overcome the trouble to a great extent.

I have found in differential leucocyte counts a marked large mononuclear increase.

This is not simply the lymphocytosis of syphilis or tuberculosis, but it can be picked out.

As to electricity, galvanism is valuable if properly applied, which is directly to the thyroid. The faradic and static activity do harm. As to the X-ray, I have heard some surgeons found adhesions after it. With galvanism I use iodine on the one pole; the skin will redden up and there is a marked effect of the iodine on the skin.

Dr. Baker, Cleveland: An oculist sees a great many of these cases, and I have had the opportunity to follow several of them for years. At several of our societies I remarked that the only deaths I knew of from exophthalmic goitre were on the surgeon's table. This did not meet with the approval of my confrères, but I have examined my statistics and I find these patients get well. The tendency is to get well in from one to five years, with or without treatment, and I submit whether it is right or fair to our patients to operate on them when the tendency is to get well. Nearly all of them have suffered some mental shock, and that is what is back of most of them. Also a majority of them have a disappointment in love, and marriage has cured them. One of my confrères says if a marriage does not cure them in some cases, a divorce does. It is a question of mental rest. We put these patients into a state of well being, physical and mental, and they get well. The very most aggravated cases, which we put to bed and sew the eyelids together to prevent laceration of the cornea, get well. I think that accounts for the good results in operations; they put them to bed and the rest cures them.

Dr. Howell, Columbus: The tendency has been to ridicule the surgical side of this disease, and it therefore behooves me, in the absence of Ohio's greatest son, Dr. Crile, and as a great believer in him, to give my experience with his technique for the operation on Graves' disease.

In the first place, the cases of Graves' disease should be chosen for operation as you would choose cases of appendicitis for operation. Ochsner said that some cases were too early for an early operation, and some cases were too late for a late operation. It would be as wrong to operate a case with the pulse at 160 as it would be to operate for appendicitis at 160 and tympanic. Give them rest in bed. Give them Beebe's serum. Most of my patients are not capable of going to Mexico or Colorado. After trying various treatments, and such things having failed, we come down to the surgical treatment. Dr. Warner said something about hemorrhage. There should not be a drop of blood spilt during the operation for exophthalmic goitre. The patient should not know she is going to be operated on that morning. If they know it is going to occur, the psychic effect is so great as to throw the heart to 120 or 160 or 170. Steal your thyroid and she will not know it, and when she comes to herself her pulse will be down thirty or forty a minute. The patient having been carefully prepared and anesthetized, put her on a table at an angle of twenty degrees. The Crile method of tubes in the nose is carried out. Then ligate the artery. The position of the patient controls the venous supply. The skin alone is cut through, the superficial tissues carefully dissected with the cleanest, sharpest knives possible and each tissue recognized before it is cut. An elevator is previously placed under the neck so that it is in a convenient position, and the thyroid will bulge out of its bed, and you will see the connective tissue holding it, and this is separated. Then ligate the four thyroids, two superior and two inferior. You will say what is it going to do for nutrition? You can't kill a

thyroid. I think the doctor said to remove half, including the isthmus. That is not right, and I quote from the greatest authorities in the world, and I am just an humble observer. With all due respect to Mayo, who says the parathyroid amounts to nothing, we are not in a position to know that. After ligating the four thyroids, begin shaving down with the scissors. You can get just as much as you want and have a smooth neck when the skin is restored. In removing this I would warn you not to press on the skin, as it causes a squeezing out of the juice into the cellular tissue, where it is absorbed readily and a hyperthyroidism is produced which is alarming.

As to the effect of hemolysis: The blood of a person with Graves' disease does not produce hemolysis. This is my experience and that of Crile. If he were here my modesty would prevent me from speaking. His achievements along these lines place him in the position of a Napoleon in this country.

E. A. Hamilton, Columbus: Surely experience in this matter is widely different. The first speaker said it was of little gravity in his hands; he rarely sees a death in this condition and that the necessity for operative interference is not so clearly indicated as a great many of our enthusiastic surgeons claim. A great many died in the hospital at Mayo's while I was there, that came there after long treatment. The Mayos had not touched them, and they have learned to leave these cases alone. There is a vast element of truth in what has been said about the prevalence of this condition. We do have these people in our sanitariums, with a weak, feeble pulse; they drift from one institution to another. They get fair relief, and go back into the ordinary duties of life and the same symptoms reappear. It seems to me that such condition calls for something radical for its relief. It is due to a hyperthyroidism, and I wish to emphasize the point already made that we mistake the importance of the condition by calling it different names, and these are simply the symptoms of the absorption of the poison into the organism. There are a great many cases which will recover spontaneously with Christian science, mental suggestion or whatever you term it, with or without treatment. But a number of cases must come to the surgeon simply from the fact that we have an organism which is producing too much secretion. It is necessary to reduce the quantity of gland which is producing this secretion. It is a mechanical proposition. Obviously the thing to do is to cut down the secreting area, and we get a marked alleviation of the symptoms. This is noted by the gentlemen who do this work in nine cases out of ten. The tremor subsides, the pulse drops. One of the first things is the satisfactory diminution of the pulse rate and the general nutrition will in a few days pick up in a satisfactory manner.

Dr. Warner emphasizes the necessity of not administering any thyroid extract. It is a condition in which we have an excess of thyroid material in the body, and the only possible effect of administering thyroid extract is to increase the severity of the symptoms. It is the practice to put him on thyroid extract, and that is the worst possible practice.

There is a pathological condition in this hyperthyroidism not alluded to, in which there is the pressure of a cyst instead of the gland, or the pressure of a normal gland and the cyst within the organ. There we must have an operation. We have an excessive giving off of colloid material on account of the pressure on the cyst. If not removed we will have a breaking down of the gland and all the material it is capable of producing will be used up and we will have a condition of hyperthyroidism followed by a condition of myxedema.

Dr. Sutton, Zanesville: I have been for several years waiting and waiting for an opportunity to do some surgery on the thyroid—looking for a case in which I would feel justified in operating, but I have been disappointed in every case by waiting for them to get worse. I have had the good fortune to see all my cases recover, and I have had some aggravated cases. Four or five years ago I went into the country for fifteen or sixteen miles from the railroad to see one of the most aggravated cases I have ever seen. He was unconscious and had all the pulse and other symptoms. We had a consultation, and I told the attending physician to go ahead and do the best he could, it was management more than medicine, and I had little faith in any special treatment in this condition. I was anxious to know what became of the case and never heard until the other day his son came in to consult me. I sent him to the hospital for an operation. A week ago I went to my office and found a man waiting for me—his father. It was the man I had been out there to see. He had recovered right away and had been able to work ever since. He asked me what time the train left, and I told him it would leave in ten minutes and it would take fifteen minutes to get to the depot from the office. Out of the office he went, and a jack rabbit could not have caught him. He did not suffer any serious inconvenience because he was back in a few days to see how his son was getting along. I have had a number of patients come in from the country complaining of enlarged thyroid, and I have injected a weak solution of carbolic acid, in which I have no faith but for the psychic effect, and it did produce a decided benefit, and I found it was only necessary to give them one injection if their circumstances were limited, and it would cure them. They got well. I am speaking the truth, and I want to say seriously that no man can produce such mortality figures from operative procedures on that gland, unless he corrals his patients, as I believe they do in some certain places, and operate on them all, regardless of whether they are sick or well.

Dr. Warner (closing discussion of his paper): I am a member of the Columbus Academy of Medicine, and I never feel we have had a session unless we have had an animated discussion, and when I attend a session of the Ohio State Association I never feel we have had a meeting unless Dr. Sutton speaks. He thinks these cases all recover, and that is a happy solution of his cases, but it is the experience of many good men that all do not recover. There is a large amount of danger associated with these cases; many die as a

result of this affection, many dying before diagnosis is made.

Dr. Baker speaks of so many of his cases recovering, and we all know they do recover without operation, but there is trouble in letting a case go too long after diagnosis is made, treatment is tried, the rest cure, etc., but even the conservative Billings would not have you continue the rest cure or attendant methods if you get no results. He would not have you carry it to the extent that if you came to operate you would find it useless. I believe, and I think you all believe, that the reason this is brought into disrepute is that it has been an operation of last resort. Operations upon the thyroid are not particularly dangerous. The danger, as I pointed out, in the chronic form of goitre, is not grave. But even in the case described by Dr. Sutton, it seems to me he might have best served the interest of his patient by performing—not a thyroidectomy at that time—but to make a ligation of the superior thyroids, which could have been done with impunity. He recovered without it, but he would not have been subjected to any greater danger than that from the use of an anesthetic and the very slight nausea.

It has been said that the old authors speak of this years ago. My experience has not been broad enough to stand here and tell you dogmatically from my own experience, but I want to quote to you a few remarks made. C. H. Mayo said in one of his lectures last week, that any literature read over three years ago is not worth the reading, and if you have read it it was your misfortune, because you would have to unlearn it. It sounds harsh, but it seems to me more and more that our present knowledge of Graves' disease is new.

The X-ray produces adhesions. It seems to be the policy at Mayo's to use it on all cases three weeks before the operation. They do it with the idea of minimizing the hyperthyroidism. I have seen it in many cases, and the adhesions do not seem greater than without it.

Dr. Sawyer spoke of change in climate; his experience is not in accord with the observations of most of the writers, that a high altitude is valuable. As a general rule the tachycardia has been increased in high altitudes. That has been the experience of the majority.

CLASSIFICATION AND NOMENCLATURE OF PULMONARY TUBERCULOSIS ADOPTED BY THE NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

INCIPIENT.—Slight initial lesion in the form of infiltration limited to the apex of one or both lungs or a small part of one lobe. No tuberculous complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbance or rapid loss of weight). Slight or no elevation of temperature or acceleration of pulse at any time during the twenty-

four hours, especially after rest. Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

MODERATELY ADVANCED.—No marked impairment of function, either local or constitutional. Localized consolidation moderate in extent, with little or no evidence of destruction of tissue; or disseminated fibroid deposits. No serious complications.

FAR ADVANCED.—Marked impairment of function, local and constitutional. Localized consolidation intense; or disseminated areas of softening; or serious complications.

CLASSIFICATION OF RESULTS.

UNIMPROVED.—All essential symptoms and signs unabated or increased.

IMPROVED.—Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

ARRESTED.—Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationary or retrogressive; the foregoing conditions to have existed for at least two months.

APPARENTLY CURED.—All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.

CURED.—All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

The relative frequency of different kinds of acute obstruction, with the attending mortality in operated cases, has been shown by Charles L. Gibson, in 1,000 cases collected from his own service and other sources, and reported in the annals of surgery. They are classified as follows:

	Cases.	Mortality. Per Cent.
Strangulated herniæ	354	37
Intussusception	187	50
Bands	186	41
Volvulus	121	54
Meckel's diverticulum	42	62
Gall stones	40	57
Slits or apertures.....	34	62
Foreign bodies	16	25
Diaphragmatic hernia	6	100

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SIGNIFICANT ACTION BY THE STATE BOARD OF EXAMINA- TION AND REGISTRATION.

At a recent meeting of the State Medical Board during October, the certificate of Thomas A. Miller to practice medicine was revoked.

In the application for revocation it was charged that Miller had advertised a sure cure for tuberculosis, regardless of the stage or physical condition of the patient. The defendant was represented by a prominent attorney of Columbus, who admitted that his client was responsible for the advertisement, but contended that he was able to accomplish the results as advertised. The Board took another view of the matter, however, considered the charges sufficient to warrant drastic action, and ordered the certificate revoked. This resolute action of the Board shows its progressive character as at present constituted, and merits the unqualified commendation of the organized medical profession. It has much more significance, however, than merely the revoking of Miller's certificate to practice; it means that the Board is aware that its functions are greater and wider than merely the

examining and registering of graduates; that it has as well the oversight and guardianship of the medical profession, and may weed out for cause unworthy members.

It means that it considers lying advertisements as good and sufficient cause for such action. It means that it is awakening to its own power, and we may look for something to happen in the near future.

Ohio has been, in the matter of quack practitioners, a reproach; practically all of these black sheep of our profession are meretricious, and many of them rank swindlers. The Board should have the power to put the advertising quacks out of business, and has made a step in that direction.

For the very excellent start made let all join in hearty approval and show our approbation by supporting the Board to the extent of our power.

THE TUBERCULIN TESTS.

Tuberculin is the topic of the day; much is being written and said as to whether its use is to be advocated or condemned, its value as a diagnostic agent

debated, and the various methods of use with their relative worth discussed.

The need of some early reliable specific test is universally recognized; in the incipency when the importance of recognizing the infection is the greatest, the difficulties of positive diagnosis are also the greatest. In many instances it is impossible to tell by all ordinary means, whether incipient tuberculosis is or is not present. It is in just these cases, and these only in which the indications for some such means as tuberculin arise, for well established tuberculosis, no matter where the lesion may be, presents evidences so characteristic, and the ordinary methods of diagnosis have become so assured, that its recognition is only a matter of proper amount of training in one's profession and of ordinary assiduity in studying the case.

The objections to tuberculin depend very largely upon the prejudice aroused by the very unfortunate results following its improper use after its first production by Koch in 1890. Results for which Koch cannot justly be held responsible, as the hope of the discovery of a specific led to a reckless and indiscriminate use of the new product in defiance of the discoverer's warnings and protests. Unquestionably tuberculin when first introduced did a great deal of harm, and was actually responsible for a great many deaths. Continued investigations, however, along the lines originally laid down by Koch led to practical demonstrations that under proper precautions, in selected cases and in proper dosage, it was no more dangerous than many other potent drugs in our armamentarium, in fact less so, as relatively large doses in the normal individual produce no ill consequences whatever.

It has been claimed that acute miliary tuberculosis has followed its use by injection. To us this seems a fact very difficult to demonstrate, and considering

the relatively few cases of such reported and the large number of instances of the employment of tuberculin, the former might well come under the suspicion of coincidence. Certain it is that a large number of conservative clinicians have used this method in recent years under proper precautions as to dosage, etc., in a very large number of cases, without witnessing any bad results.

The conjunctival instillation test was suggested as free from any constitutional dangers, but its rather wide employment quickly showed the possibility of local damage. In carefully selected cases free from local irritation, and with a dosage in the adult of but one drop of one per cent solution of tuberculin the dangers of serious inflammatory reaction are minimized. These limitations materially restrict the field of usefulness; if used at all it must be employed with caution.

As regards the cutaneous reaction of von Pirquet, there have been published as yet no reports of any bad results following its use, so that it seems entirely harmless.

The Moro method, consisting in the use of a fifty per cent. tuberculin ointment by inunction is equally harmless. In looking over the published results of a large number of investigators, representing over four thousand cases a few definite conclusions present themselves.

(1) Tuberculin, while a very important aid in the early diagnosis of tuberculosis, cannot be claimed as yet as a pathognomonic test. The negative results after thorough trial are very significant of the absence of tuberculosis. (2) Tuberculin injections under proper precautions have been used by a great many clinicians in a large number of cases without harmful effects and give the most reliable results. (3) The cutaneous reactions are entirely harmless, are more applicable in children, and compare fairly favorably with the in-

jection method. (4) The conjunctival test possesses possibilities of local danger, should be used with caution if at all and has no advantages as to delicacy or reliability over the cutaneous reaction. (5) The positive reaction merely indicates the presence of tuberculosis, and without signifying its locality, or whether it be active or latent. However, the late reaction is more common in arrested tuberculosis.

EDITORIAL NOTES

The agitation of the pure milk question by the medical profession is producing results. The following communication shows that the Dairy and Food Commissioner is awakening to the necessity of greater watchfulness of this great food supply. This is a step in the right direction, but it is sincerely to be hoped that it is to be followed up vigorously by the promised inspections, for there is no question of the abuses everywhere. Ignorance is no longer any excuse, and only a vigorous enforcement of the law will correct present conditions.

November 14, 1908.

To Dealers in Dairy Products:

As the name indicates, this department is charged with the enforcement of the laws pertaining to the production and sale of milk and other dairy products.

I believe much good can be done to improve the cleanliness and wholesomeness of these products.

It is my intention to give the dairy business much more attention in the future than it has received by this department in the past, and with this end in view—so far as appropriations and means at my command will permit—dairy inspectors will soon be specially detailed to inspect dairies, creameries and other places where milk is produced or handled.

This work will demand the cooperation and assistance of all dealers in and producers of these articles. The producers should use greater care in the treatment of their cows as to health and feed, and have all surroundings and utensils in good, clean and sanitary condition. The dealers, including creamery men and cheese factory operators, should use the same care in handling their products. They should provide themselves with the necessary testing apparatus, and should be able to operate it accurately and correctly.

I call your attention to the requirements of the Ohio law:

The standard for milk requires that it shall contain not less than 12% solids and 3% fats.

Milk from which a part of the fats has been removed shall be labeled and sold as skimmed milk.

There is no fixed standard for cream.

Condensed milk shall be made from whole milk.

Butter shall be made wholly from pure milk products.

Renovated or process butter shall be made wholly from pure milk products and shall be labeled and sold as such.

Oleomargarine is an imitation of butter, not made wholly from pure milk products, and shall be labeled and sold as such, and shall be free from artificial coloring matter.

Cheese, including cream cheese, Ohio State full cream cheese, or full milk cheese, shall be made wholly from pure milk products and contain not less than 30% butter fat.

Skimmed cheese shall be made wholly from pure milk or cream, and may contain less than 30% butter fats.

Filled cheese is an imitation cheese, not made wholly from pure milk products, and shall be labeled and sold as such.

Milk shall not be sold in the following instances:

1. From cows fed on unhealthy feed.
2. From cows fed on wet distillery or starch waste.
3. From diseased or sick cows.
4. From cows kept in a place that is unclean or in an unsanitary condition.
5. From cows kept in a cramped or unhealthy condition.
6. When water or other foreign substance has been added.
7. When it is unclean, impure, unhealthy or unwholesome.

The principal feature of the law now demanding attention is to improve sanitary conditions in the production and handling of dairy products, having in mind the healthfulness of the cows, surroundings of the barns, the cleanliness of the utensils and the healthfulness and cleanliness of attendants.

I should be glad to receive any complaint or suggestion that in your judgment may be of service in this work.

Yours truly,
RENICK W. DUNLAP,
Commissioner.

The local option elections resulting in so many counties going "dry" have raised several problems for physicians and druggists which must be carefully considered. Without doubt many illegal attempts will be made in these dry districts to obtain alcoholic preparations through physicians or druggists, and therefore a thorough understanding of the law is commended to our readers.

A series of inquiries bearing on many phases of the law was sent by the Midland Druggist to the Dairy and Food Commissioner, seeking his official interpretation, to which the following response was made. As there is much that will be of advantage to the medical profession to know, the opinion is given in full:

"Dr. J. H. Beal, Midland Druggist:

"Dear Sir: I have given due consideration to your letter of the 21st inst., relating to the Aiken liquor tax law as affecting retail druggists.

"In reply thereto permit me to say that it is not the policy of this department to embarrass or annoy any dealer who is trying to comply with the law and no injustice will knowingly be done to any such person.

"The inquiries submitted by you are such as entitle you to a frank reply, although, as you know, it is not the province of this department to construe the law for other individuals, but only to carry it out with respect to the duties enjoined upon the Dairy and Food Commissioner. Whatever interpretation I may put upon it will bind no one, but I am willing to express to you my views as to the intent and purpose of the act.

"Section 4364-9 of the Revised Statutes provides:

"Upon the business of trafficking in spirituous, vinous, malt or other intoxicating liquors, there shall be assessed yearly * * * the sum of \$1.000.

"Section 4364-16 provides:

"The phrase 'trafficking in intoxicating liquors' as used in this act means the buying or procuring and selling of intoxicating liquors otherwise than by prescription, issued in good faith by a reputable physician, in active practice or for exclusively known mechanical, pharmaceutical or sacramental purposes, etc.

"You submit the following inquiries:

"1. What is deemed an intoxicating liquor within the meaning of the law?

"2. What is a pharmaceutical purpose?

"3. What is a mechanical purpose?

"4. What is a scientific purpose?

"5. What is a medicinal purpose?

"6. What constitutes a written prescription?

"7. What is meant by good faith by a reputable physician in active practice?

"8. Can liquors be sold directly to physicians?

"9. Can brandy, rum, etc., be sold for culinary purposes?

"10. What evidence is required to warrant a druggist in making sales?

"1. *What is an intoxicating liquor?*

"Spirituous, vinous or malt liquors, whether intoxicating or not are forbidden by the act, but there are many other liquors that are intoxicating that are likewise forbidden by the act.

(See *State v. Kauffman*, 68 O. S. 644.)

"In determining what other preparations are intoxicating, this department has followed the rules that are laid down and recognized by legal authorities and decisions of various courts.

"Black on Intoxicating Liquors, says:

"It may be defined as meaning any liquor, intended as use for a beverage, or capable of being so used, which contains alcohol, either obtained by fermentation or by the additional process of distillation, in such proportion that it will produce intoxication when taken in such quantities as may practically be drunk."

"And in the case of *State v. Laffer*, 38 Iowa, 422, it is said:

"So long as the liquors retain their character as intoxicating liquors, capable of use as a beverage, notwithstanding other ingredients may have been mixed therewith, they fall under the ban of the law; but when they are so compounded with other substances as to lose the distinctive character of intoxicating liquors, and are no longer desirable for use as a stimulating beverage, and are, in

fact, medicine, then their sale is not prohibited."

"Again in *Intoxicating Liquor Cases*, 25 Kansas, 571, it is said:

"If the intoxicating liquor remain as a distinctive force in the compound, and such compound is reasonably liable to be used as an intoxicating beverage it is within the statute and this though it contain ingredients of an independent and beneficial force in counteracting disease or strengthening the system."

"Again—

"The courts may not say as a matter of law, that the presence of a certain per cent of alcohol brings the compound within the prohibition, or that any particular ingredient does or does not destroy the intoxicating influence of the alcohol or prevent it from ever becoming an intoxicating beverage. Of course, the larger the per cent of alcohol and the more potent the other ingredients, the more probably does it fall within or without the statute; but in each case the question is one of fact and to be settled as other questions of fact."

"It seems therefore that any liquor which contains enough alcohol to produce intoxication and which can be used as a beverage is deemed an intoxicating liquor.

"With reference to flavoring extracts, toilet preparations, and legitimate medicinal preparations such as Jamaica ginger and paregoric this department will consider the purpose for which the article is intended to be used in determining whether it will be classed as intoxicating liquor, and so long as grocers and druggists in good faith sell such articles for lawful purposes the commissioner will not interfere.

"It is incumbent upon the seller to know at his peril that the preparations are to be used for the purpose for which they are sold, and the question of good faith will be determined by the character and frequency of the sales to individuals. Every such case will depend upon its own facts and circumstances, and the seller must assume the burden of showing that he has acted in good faith. The same test will be required as to the sale by prescriptions. As was said by Judge Mansfield in the Harrison County Common Pleas Court in the case of *McBean v. Sears*, reported in the 8th N. P., 189.

"The phrase 'prescription issued' in the Dow law means the same as 'written prescription' and every sale by a druggist otherwise than upon a prescription issued 'for medical purposes by reputable physicians' must be held to be without the exception, and the burden of showing such sale to be within the exception rests upon the party making it, and this proof is to be in writing, that the statute may not be evaded. The fact that the plaintiff sold liquor in good faith for medicinal purposes can be no protection to him, unless the prescription on which he made the sale meet the requirement of the statute.

(2) A prescription in contemplation of the statute should be dated, should contain the name of the patient with directions as to its use and should not only be signed by the physician issuing it, but should be directed to some particular druggist as evidence of good faith on the part of the one issuing it. Such a prescription is an effective means of preventing abuses and evasions and sub-

terfuges, and it is of equal importance where the druggist is himself a physician as in any other.

(3) It is not competent under the law to offer oral evidence that a sale was made on a certain prescription. The prescription itself must be the only evidence. If a druggist sells upon a prescription which requires oral proof in addition to the prescription itself, he sells at his peril."

"2. *What is a pharmaceutical purpose?*

"As to what is a pharmaceutical purpose is a question of fact that must be determined by all the circumstances of the case and here again the druggist must assume the responsibility.

"In the case of *McBean v. Sears, supra*, the court says:

"What is meant by the phrase 'or for exclusively known mechanical or pharmaceutical purposes' I shall not undertake to explain further than to say that to justify sales under this clause the druggist cannot safely act on the mere word of the purchaser that he wants it for such purpose. If the mere statement of the purchaser that he was buying the intoxicating liquors for mechanical or pharmaceutical purposes exclusively were held to be a complete defense or justification for the druggist then the worst tippler in the community could get all the liquors desired by uttering the magic words 'for mechanical purposes'. Every druggist who sells intoxicating liquors for mechanical or pharmaceutical purposes upon the mere statement of the buyer that he wants it for such purpose takes the risk of convincing a court or jury that he acted in good faith, and that he honestly believed it would be used for such purpose and only for such purpose; and if the person to whom he sells is known to him to be a person who uses such liquors to excess as a beverage, then the risk of convincing a court or jury of the good faith of the transaction is proportionately increased, and his case lost when the act is done."

"So long as the druggist sells intoxicating liquor in good faith to be used for pharmaceutical purposes this department will not regard it as a violation of the law. If the sales are so frequent and of such a character as to reasonably cause the druggist to suspect bad faith, he must be held accountable for his acts.

"3. *What is a mechanical purpose?*

"What is said with reference to a 'pharmaceutical purpose' may be applied to a sale for mechanical purpose.

"4. *What is a scientific purpose?*

"5. *What is a medicinal purpose?*

"It will be observed that the law makes no exception in favor of sales made for medicinal and scientific purposes. There are only four ways by which a dealer can make sales and avoid the payment of the tax, to-wit: 1. Upon prescriptions issued in good faith by reputable physicians in active practice. 2. For exclusively known mechanical purposes. 3. For exclusively known pharmaceutical purposes. 4. For exclusively known sacramental purposes.

"6. *What constitutes a written prescription?*

"Judge Dow, of the Logan county Common Pleas Court, in deciding the case of *Hubbell v. Ebrite*, county treasurer, and reported in 7 N. P., 220, in syllabus says:

"An order signed by a physician for a certain quantity of liquor, without directions as to its use, and simply marked 'refill,' is not a 'prescription' within the meaning of the Dow law."

"And again, on page 221, the court says:

"Suppose the paper had read as follows: 'July 4, 1896. Let John Jones have 3 oz. spirits frummenti.—Refill. (Signed) Jas. A. Hubbell, M. D.' This is not a prescription under Section 8 of the Dow law. It is not addressed to any one—it does not specify the manner of the use—it leaves it all to the 'judgment' of the patient as to the quantity he shall drink at any one time. The Century Dictionary defines a prescription to mean 'a statement usually written of the medicine or medicines to be used by a patient, and the manner of using the same.'"

"I would deem a typewritten prescription actually signed by the physician to be sufficient, and in all cases where the liquor is sold upon the prescription of a physician my judgment will be controlled by the circumstances of the case and the good faith of the parties. What is sought to be accomplished is a compliance with the law, and I shall be guided in the administration of it by the rules of public policy which seek an enforcement and not an evasion of it.

"7. *What is meant by good faith by a reputable physician in active practice?*

"In my opinion, these words should be construed strictly. It is the duty of the druggist to act in good faith, and it is his business to determine whether or not the physician is reputable and in active practice; otherwise he is not bound to fill the prescription. If he errs in his judgment, he will not be deemed a violator of the law, but the burden will be upon him to show clearly and conclusively that he acted in good faith.

"8. *Can liquors be sold directly to physicians?*

"The law does not permit the sale of liquors to physicians. That would be deemed to be trafficking in liquors. They are put upon the same level as other individuals. If, however, liquor is sold to them upon prescriptions issued in good faith by reputable physicians in active practice, or if it is sold for mechanical, pharmaceutical or sacramental purposes, such a sale is lawful.

"9. *Can brandy, rum, etc., be sold for culinary purposes?*

"This does not come within the exceptions laid down in the act. Intoxicating liquors cannot lawfully be sold for such purposes either in dry or wet territory.

"10. *What evidence is required to warrant a druggist in making sales?*

"That he must determine for himself. He must act in the utmost good faith, and he must even go further than that. He is put upon inquiry to know whether it is to be used for the purpose for which it is claimed by the purchaser. In other words, he must know of his own knowledge that said liquor is to be used for the purpose for which said purchaser claimed he made the purchase. He must 'take the risk of convincing a court and jury that he acted in good faith; that he honestly believed that it would be used for such purpose, and only for such purpose, and if the person to whom he sells it is known to him to be a person who uses such liquors to excess as a beverage, then the risk of convincing a court or jury of the

good faith of the transaction is proportionately increased, and his case is lost when the act is done.

"These are the various constructions which this department places upon the act, and the department will be governed by the principles laid down in this connection in passing upon cases made and reported upon by the inspectors. The doubt will be resolved in favor of the seller, and when a question of good faith arises it will be necessary for the druggist to make it clear and convincing that he has exercised the judgment of a reasonably careful and prudent dealer under similar circumstances.

"I may repeat that what will be sought to be accomplished is an honest enforcement of the law, *without any attempt to restrict the sales beyond what the Legislature has already restricted them.* No action has ever been taken by this department where evidence was secured of but a single sale. In all those cases where two or more sales have been made to the same party within a few days of each other and in many cases where several sales have been made within less than a day or even an hour intervening, which sales were not made upon the prescription of a physician or for mechanical, pharmaceutical or sacramental purposes, the parties have been certified to the state auditor for the tax.

"There will be no change in the policy of this department, notwithstanding the sensational press reports that you speak of, and there is no occasion for any druggist in the State of Ohio who wants to obey the law honestly and fairly to become excited or nervous about the administration of the law.

"I shall be glad to have any errors in my construction of the law pointed out to me, as I do not desire to interfere with the lawful business of anyone.

"Trusting this will answer your inquiry, I am,

Yours very truly,

RENICK W. DUNLAP,
Commissioner."

The following appeal, issued by the Journal of the South Carolina Association, is sound. Will the members of our Ohio Association follow the excellent suggestion?

To the Owners of this Journal, the Members of the South Carolina Medical Association:

You know that reciprocity encourages business, don't you? Outside of common decency, and leaving aside mere etiquette, it's good business to stick to your friends, isn't it? Now, who is your friend—the smooth-tongued spiel artist who swears undying love and admiration for you as long as he is in your hearing and laughs behind your back at your ease, gullibility and willingness to do business with him at an expense to himself of nothing more than a few lungfuls of hot air? Or is your friend the fellow who thinks enough of you to support your efforts for betterment and puts up his fair share of cash for the promotion of straightforward business intercourse with you and for the stimulation of legitimate professional business and its accompanying trade?

The last, you say? Certainly. There are no

hopeless idiots among the owners of this Journal.

All right; so far, so good. But what are you doing for your friends who are helping you in your work? And what will you do for the pretenders who are "working" you for their own help?

Read the following colloquy, which actually occurred very recently in our hearing:

Affable Salesman (entering doctor's office)—"Doctor, I am representing the Blank & Blank laboratories, of Analaska, and I have a very elegant preparation, of which I am going to leave you samples, of the best, positively the very best, most scientific mixture of laxative salts ever offered to your discriminating profession. This is"—

Doctor (interrupting)—"Does your firm advertise in the Journal of our State Medical Association?"

Salesman (with pained surprise)—"Er—no. Why do you ask?"

Doctor (cheerfully)—"Oh, because there's really no reason why we doctors should support a firm that is not willing and ready to support us in our efforts to better existing conditions."

Salesman (affecting indignation)—"Do you mean to tell me, sir, that simply because a firm does not advertise in your Journal, you refuse to consider or test its products, no matter how superior they may be—no matter how many lives they may save?"

Doctor (sweetly)—"My dear man, how many firms in this country put out the best product on the market? And how many of them come in here to tell me all about it? Do you suppose for a minute that I, or any other doctor, has time to try them all on their merits? Do you, now, eh?"

Salesman (unwillingly)—"Well, no; I don't suppose you have."

Doctor—"Very good. Then, isn't it reasonable and proper that what testing and patronage we have to place should favor first the firms that maintain close business relations with us—our business friends?"

Salesman—"Yes, I guess that's true. I am going to take this matter up with the house. What's the Journal's business address?"

Now, the point is that the Journal needs the support of good, ethical advertisers, and if every doctor who is part owner of the Journal will pursue the above line of thought, speech and action, the effect would be magical. As long as these houses think they can work us without advertising, they will hold back. It is up to us, every one of us, to treat them as if they were from Missouri, and show them! By doing this we are at the same time giving loyal support to those houses that are represented in our pages, which is only decent and proper. They are the ones to whom we should always give preference, and we again urge all of our joint owners to follow up this principle and always to insist distinctly when buying supplies that you wish and will have our advertisers' products—there are none better.

We have a most wonderful and estimable concord of thought in the profession of our state. What remains to be acquired is unity of action.

Are there brains and energy enough in our membership to accomplish it? We think so.

At the meeting of the Mississippi Valley Medical Association, Philip Zenner, of Cincinnati, professor of neurology in the Medical Department of the Cincinnati University, read a paper entitled "The Human Element in Medicine." The essayist spoke in part as follows:

A powerful therapeutic agency is the made of examination of the patient. A thorough examination is likely to create the idea that the physician understands the case, and thereby to give the patient full confidence in him. If, at the same time, the physician has instilled into the patient's heart that he has his kindly interest and sympathy, he has already administered a powerful tonic in every case and has put the case of nervousness far on the road to a cure.

But the physician should also bear in mind the harm that may be done by a thorough examination. Firstly, it may alarm the patient, may suggest to him disease or danger of which he had not formerly thought. Such alarm is especially aroused by the examination of certain organs—the heart, above all. Such sources of harm should be eliminated by the physician, through his knowledge of his patient, through care and tact, and oftentimes through reassurance of the patient before the examination is undertaken.

Again, the physician may harm his patient by neglect or delay in telling him the result of the examination—of the urine, for instance—the idea arising in the patient's mind that he has serious disease, of which his physician is unwilling to speak.

Another thing the physician should avoid is showing the patient the doubt which is in his own mind. We find symptoms that puzzle us, or doubt may have arisen in other ways, doubt which often need play no part in the conduct of the case and may have proven to be of little consequence. But this doubt, transferred to the patient's mind, very commonly is a source of worry and may materially influence his condition.

Now, let us see how this human element figures in diagnosis and prognosis. A reassuring diagnosis and a favorable prognosis on the one hand, and an alarming diagnosis and grave prognosis on the other, are the most powerful mental agencies for good or ill which the physician possesses, and how lightly he sometimes handles them! Perhaps on vague and undefined symptoms he mentions a disease which fills the heart with terror, or tells a woman, comparatively young, that she will lose her nervous symptoms after the menopause, thus taking the surest means

of indefinitely prolonging incapacity and suffering.

Some of the most dread diagnoses—for instance, heart disease and locomotor ataxia—might, through careful explanation of the physician, be robbed of much of their terror. It should be made clear to the one that compensatory hypertrophy may avert all ill effects, so that length of life need not be affected, and to the other that many with locomotor ataxia are scarcely interrupted in life's activities nor their lives shortened thereby.

Next as to the human element in therapy. What I have to say now applies mostly to the functional nervous diseases, hysteria, neurasthenia and hypochondriasis. It is a very common custom to attribute many conditions of nervousness to various local diseases, that of the stomach, the uterus, etc., and to direct the treatment chiefly to those organs. That the relationship of cause and effect really exists in these cases is very doubtful, that is, farther than in so far as the local disease mars the general health. But there is no doubt that this local treatment often influences the nervous disease, an influence that may be for good or for harm. It is almost as certain that that influence is chiefly mental, that the local treatment does good or harm in these nervous cases chiefly through its effect on the mind. When they are benefited or cured it is largely due to suggestion. When they are injured—and this occurs just as often, if not more frequently—it is largely because the local treatment keeps the patient's mind fixed on the disease process. How often distracting the mind, altogether ignoring the disease causes it to disappear. Who has not seen cases of "nervous dyspepsia" where the disease was prolonged by a careful and restricted diet, frequent examinations, local treatment and the like, while it quickly disappeared with a generous diet and the neglect of symptoms?

A mode of mind cure of which I wish to speak, is that of education or persuasion. It consists in explaining to the patient the nature and origin of his symptoms, in order that they be removed by his own insight and effort. It is applicable to those in whom the symptoms are due, in part or altogether, to the mind, that is, they are produced by suggestion, or are intensified through the mind, or are caused by fears or kindred mental states. This means chiefly cases of nervousness, but not them-alone, for it is often applicable even in cases of serious organic disease.

Treatment by suggestion is very simple: it taxes neither physician nor patient; in fact both

are usually unconscious that it has been called into play. Treatment by education is a very different matter, and may tax to the uttermost both physician and patient. The physician should know his patient well, his disposition, intelligence and power of insight. He must know his power of insight, that the explanation, which he gives him, fully satisfies his needs; and he must know his disposition, for it is necessary to address very differently the mind of the sensitive patient to whom his diagnosis may appear to be a personal reflection, and the open minded one, looking only for the means of health. In every case the physician must have the full co-operation of his patient, or his own efforts will be futile.

Again, he must know what is in his patient's mind, for the better understanding of his suffering and its causes. On the one side are the sorrows, worries, fears, obsessions, and the like, possibly locked up in the patient's heart, while knowledge of them might enable the physician to give relief, if not speedy cure; on the other, are the many suggestive influences that are producing, and intensifying symptoms. The latter, the suggestive influences, may be hidden and hard to find. It may have been something felt, seen, heard, read, or only dreamt, now forgotten, though still having its blighting effects. Not rarely it is something that originally was, or appeared to be, the cause of certain symptoms, and thereafter, produced those symptoms merely through the patient's idea, that is, the belief of this relationship of cause and effect. Very often, too, while a bodily cause of symptoms is present, it only becomes effective because fright fixes it, or suggestion strengthens it, or in other ways it is intensified by the mind dwelling upon it.

Other cases tax to the uttermost the resources of the physician, his knowledge, his efforts, and his patience. His first aim must be to give his patient full insight into his case, often no easy matter. The patient's feeling that his symptoms appear quite independently of any act or thought of his, whether or not that opinion be correct, makes it hard to bring home to him that suggestion, and expectant or fixed attention are mainly responsible for his condition, and that their elimination will permit of a speedy cure. But it is not enough that the patient have insight into the nature of his symptoms, he must have and exert the power of removing them, again, no easy matter. Here the great need is building up in the patient confidence in himself, in his power to master himself and his illness. The physician must prove his case to him; show him by examples what he can do; demonstrate to him improvement that has taken place in him, when his mind is, perhaps, given to other symptoms, that appear to be worse; command his efforts, and prophecy favorable results; point out how his fears, or mistrust of treatment is retarding his progress; try to get his attention away from symptoms and sources of suggestion, and the like more.

Sometimes the physician will accomplish most by carrying the discussion to a higher plane of thought, the philosophy of life, truth and duty, and ignoring the symptoms altogether, where-with they disappear. Not rarely the physician needs address the patient in this higher plane, for, oftentimes, false views of life and duty, faults in disposition and character, faulty use of will power, all supplemented by faulty education and environment, are the basis of the nervous malady.

MEDICAL ECONOMICS

Public Health Day for the schools.

The State Committee is busy.

The spotlight of the profession in Ohio is fixed upon medical practice legislation.

The doctor without a medical society is like a man without a country.

Now that one-half the health boards of Ohio have been abolished by political rule, it is the part of public policy to abolish the other half in a square deal, and have a deputy state health officer in full charge of all sanitary affairs in his county.

He should be subordinate to and appointed by the State Board of Health, under whose approval he would make appointments of assistants in townships, villages and cities. All powers now conferred upon health boards would be given local health officers.

Dr. Cabot's article in McClure's for August criticizes both physician and Christian Scientist. There seems to be some good and a little evil in both. In the mind of the lay reader the balance of virtue is about equally divided between the cult and the medical profession. The interests of medical economics are lost in spectacular display.

Our journals, State Medical and Health Boards and colleges are the means of public service. It is our duty to conduct their movements strictly in accord with public policy. We should take the public into our confidence and explain the nature of our organization efforts. When they understand our notions and our efforts, they will assist in our work, because their medical and sanitary interests will be seen to correspond to medical organization and mutual interests. We need men of the McCormack type of ability for state organization work.

PROPOSED LEGISLATION.

The Legislature, it is fairly certain, will meet in general instead of special session in January. It is the purpose of the State Committee on Public Policy and Legislation to send copies of printed bills which have been approved by the Joint Committee (State and Auxiliary) to members of the Auxiliary Committee. These bills relate to the deputy state health officer, the criminal abortion measure, the Grinnell bill of last session relating to the advertisement of sexual and venereal cures and the Venders bill prohibiting the vending of drugs and medicines from house to house. The State Committee at this time is considering the feasibility of sending out with these printed bills a propaganda, representing the State Association, on the important subjects, as the social evil, the social crime, a single moral standard for the two sexes and the necessity of improving the public health services. It is intended that the State Association shall assume the responsibility and duty of medical men to teach the public the importance not only of public sanitation, but of sexual hygiene. On receipt of this literature and bills the Auxiliary Committeeman in each county society should begin a campaign of education of the public through the local press and altruistic associations. The splendid work done by the Women's Federated Clubs for the passage of the Grinnell bill last winter have a telling influence in their personal appeals and petitions. Like organizations can be enlisted for the up-lift of the public health defense. The local press will publish this literature, as did the Ohio State Journal, which ran a series of five articles. The great good to be attained by educating the public and inducing parents to enlighten their children on the evils of sensuality and its resultant diseases and crime can only be estimated by the prevention of many many innocent young women from playing a sad rôle in the tragedy of sexual misrule.

A vast field of potential good for humanity lies neglected between the spiritual administrations of the church and the material agencies of medicine. In the proposed propaganda the physician assumes his duty in an effort for the moral and physical betterment of mankind.

The proposed enactments are likewise means to this end. The work of medical legislation is in the interest of the public welfare. It is necessary that the people and their lawmaking representatives and law enforcing officials understand this fact. And it is the business of medical organizations to make this fact known. When this is done the few bills to be presented to the Legislature will not only be enacted, but enforced.

Clergymen all over the country are perpetuating the Emanuel movement, and two Columbus ministers of training and ability for the work have established clinics for the treatment of functional and nervous diseases. They treat only cases referred by physicians after proper diagnosis. No pay or other reward is accepted for services. This movement, as long as it is conducted along these lines, merits the co-operation of physicians.

The State Medical Board recently prosecuted F. A. France, of the notorious France Medical Institute, in police court, Columbus. Mr. Dwight Harrison and Mr. C. B. Layland, of the attorney general's office, acted as counsel for the board, and the Hon. E. L. Taylor, member of Congress, defended France. The charge was the illegal practice of medicine. Judge Osborn rendered a decision of *not guilty*.

Reports of the McCormack meetings held in twenty-four cities of Ohio in October show the widespread benefit to the public and the profession. Newspaper commendations and organization of public health leagues followed in the wake of these meetings. The more the people are taught the fact that medical organization promotes the public health defense the greater the facility of maintaining medical standards, as expressed in the medical practice act and in efforts to establish a higher order of public health administration. Convince the people that medical legislation is in their interest, and it will follow that their representatives in legislatures will cease to charge physicians with attempts to build up a medical trust.

It is quite impossible to keep a correct mailing list of members of the Auxiliary Legislative Com-

mittee or to maintain this committee in useful action unless the names of newly elected members are sent to the State Committee. The roster of members needs revision. Will the secretary of each society please send names and addresses of newly-elected members and, in case of no election, to forward name of present incumbent?

"That smile is worth \$5000 a year to him," said one physician of another. One of the elements in medical art is to inspire happiness. "Smile, and the world smiles with you," is true to nature. The social and moral status of the

individual is affected by a smile. The smile of an infant has a cogency that rules the domestic world. This agency is the queen of sentiment; and sentiment has much to do with the affairs of life. Medicine as a science is not affected by sentiment, but medicine as an art is thus influenced. And the practitioner, though a man of large scientific attainments, may be so austere and sedate as to miss the therapeutic value of sentiment. Unfortunately, the therapeutic smile is not easily acquired. It is innate. The man who assumes this virtue exhibits not a natural expression of the soul, but a smirk. The \$5000 a year smile is not made to order, but is born with a therapeutic artist.

STATE BOARD NEWS

ROBINSON INDICTED.

H. H. Robinson, of Wapakoneta, who was bound over to the grand jury of Auglaize County last August was indicted by that body at the November term and will be tried before the Probate Court of Auglaize County during this term of court. He is charged with illegal practice of medicine.

PFEIFER LOSES.

Ed Pfeifer, who was found guilty of illegal practice by a jury in Police Court of Columbus and who appealed to the Common Pleas Court of Franklin County, has now appealed to the Circuit Court, having lost his case before the Common Pleas Court. Judge E. B. Dillon sustained the action of the lower court.

CERTIFICATE OF THOMAS A. MILLER REVOKED.

At the meeting of the State Medical Board on October 6th, the certificate of Thomas A. Miller was revoked. It was charged in the application for revocation that he had advertised a sure cure for tuberculosis regardless of the stage of physical condition of the patient. Dr. Miller was represented by Thomas E. Powell, who admitted that his client was responsible for the advertisements, but contended that he was able to accomplish the results as advertised. The Board sustained the charges and revoked the certificate.

ENTRANCE EXAMINATIONS.

The annual examinations for applicants desiring admission to medical colleges was held in Cleveland, Columbus, Cincinnati, and Toledo, September 25th-26th. There were ten applicants

in Columbus, nine in Cleveland, seven in Toledo and one in Cincinnati. According to the revised law the Board was required to hold the examinations in the four cities mentioned.

REVISION OF SUBJECTS FOR EXAMINATION.

The State Medical Board have announced a revision in the list of subjects to be submitted to applicants appearing for examination. The schedule is based upon a list of one hundred questions and the subjects evaluated with reference to the hours required in the medical course.

Anatomy	7
Histology	2
Osteology	1=10
Physiology	8
Dietetics	2=10
Chemistry	8
Toxicology	2=10
Obstetrics	5
Embryology	1
Diseases of Women.....	4=10
Diagnosis	5
Practical Pathology, Bacteriology and Urinary Analysis	5=10
Materia Medica	4
Therapeutics	4
Pharmacology	1
Electro Therapy	1=10
Practice	6
Pediatrics	2
Mental and Nervous.....	2=10
Pathology	5
Bacteriology	2
Hygiene and Public Health.....	3=10
Dermatology and Syphilology.....	5
Errors of Refraction and Diseases of the Eye, Ear, Nose and Throat.....	5=10
Surgery	8
Genito-Urinary Diseases	2=10

RECIPROCITY WITH TEXAS.

Articles of agreement have been signed with the Texas State Board of Medical Examiners, whereby those who have been examined and licensed by the Ohio Board since January 1, 1900, become eligible for application to the Texas Board for reciprocity certificates. The Texas Board is not prepared at this time to reciprocate upon the basis of registration by diploma.

A CORRECT ATTITUDE REGARDING RECIPROCITY.

The Ohio Board of Medical Examiners states that some medical students, having preliminary education less than that required by the Ohio law, have been induced to attend medical courses in other states, hoping after graduation to obtain a license in Ohio through reciprocity. The board announces that such applicants will not be eligible to registration in Ohio, since, under the provision for reciprocity, the license of another state is accepted only in lieu of the written examination. In all other respects the applicant must satisfy the requirements of the Ohio law. That is certainly a proper ruling. Reciprocity is a measure which should be more generally adopted, but it must not be made a means of evading or lowering medical standards.—A. M. A.

BOOK REVIEWS

A TREATISE ON THE PRINCIPLES AND PRACTICE OF GYNECOLOGY. By E. C. Dudley, A. M., M. D., Professor of Gynecology in the Northwestern University Medical School, Chicago. Fifth edition, thoroughly revised. Octavo, 806 pages, with 431 illustrations, of which 75 are in colors, and 20 full-page colored plates. Cloth, \$5.00 net; leather, \$6.00 net; half morocco, \$6.50. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

This edition has been brought up to date in every respect and is the strongest issue yet of a very popular work. The author has arranged the subjects in pathologic and etiologic sequence, so that the reader has no trouble in following a very simplified method of dealing with the various gynecological subjects. An introductory chapter has been added, and Chapter LV deals with "Incontinence of Urine in Women." Special attention has been lent the practical side of bacteriology and the pathology of gynecology. Modern surgical technique is fully described, and the details of all operative procedures are clearly set forth. The book is profusely illustrated, and forty new page plates have been added. Major

operations are described step by step and are illustrated by an abundance of photographs taken by the author for their special place and purpose. Twenty-two drawings are used to describe the steps of the different operations of myomectomy and hysteromyomectomy, and thirty-seven are used to explain the repair of perineal lacerations and the steps of perineorrhaphy.

The book is of convenient size and shape, is well made and is commended as one of the most practical text-books on the subject of gynecology.

GYNECOLOGY AND ABDOMINAL SURGERY. Vol. II. In two large octavos. Edited by Howard A. Kelly, M. D., Professor of Gynecologic Surgery at Johns Hopkins University; and Charles P. Noble, M. D., Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 862 pages, with 475 original illustrations by Mr. Herman Becker and Mr. Max Brodel. Philadelphia and London, W. B. Saunders Company. 1908. Per volume: Cloth, \$8.00 net; half morocco, \$9.50 net.

The second volume of this work maintains the high standard of the first. The contributions have been chosen with a view to their special ability to speak authoritatively on the subjects assigned to each, and all unite in presenting a work which as a finished product is worthy of the highest praise.

The nineteen chapters of this volume fully completed the subjects of gynecology and abdominal surgery. The chapters by Ochsner on the gall bladder, by Moynihan on the stomach, by Finney on pyloroplasty, by Murphy on intestinal surgery and by Opie on the pancreas present the last words to date on these subjects which have been of much interest of late and make the work strictly up to date.

The work is magnificently mounted, and the illustrations especially are superb, as one would expect under the editorship of Dr. Kelly.

A MANUAL OF OBSTETRICAL TECHNIC AS APPLIED TO PRIVATE PRACTICE, WITH A CHAPTER ON ABORTION, PREMATURE LABOR AND CURETAGE. By Joseph Brown Cooke, M. D., Adjunct Professor of Obstetrics in the New York Polytechnic Medical School and Hospital; Lecturer on Obstetrics to the New York City Training School for Nurses, etc. Illustrated. Sixth edition, enlarged and fully revised. J. B. Lippincott Company, Philadelphia and London.

Six editions of this little work in eight years is evidence that it has been found worthy. It is a strong protest against cheap and slovenly obstetrical work, the continued presence of which

in our midst is an abiding reproach in these days of asepsis.

The style is plain and homely, but eminently practical. It goes into just the details that are too often glossed over in general terms by the average text-books, but which the average young practitioner wants to know. It should not nor does it seek to supplant the larger works, but, used in connection with them, it will prove of great assistance to the practitioner who wishes to render good and honest services in obstetrics.

PRACTICAL POINTS IN ANESTHESIA. By Frederick Emil Neef, B. S., B. L., M. L., M. D., New York. Price, semi de luxe cloth, 60 cents, post paid; library de luxe ooze flexible leather, \$1.50 post paid. Surgery Publishing Co., 92 Williams street, New York.

This little work presents the impressions of the author on the correct use of the various ordinary anesthetics and contains some excellent points. The author evidently speaks from a wide experience, and we regret that he has not treated his subject a little more comprehensively.

A MANUAL OF DISEASES OF THE NOSE AND THROAT. By Cornelius Godfrey Coakley, A. M., M. D. Lea & Febiger, Philadelphia and New York.

This work is well arranged in text, concise in treatment, clear and lucid in style, and, above all, is practical.

It contains most of the newer developments in nose and throat work, but retains several features, particularly those pertaining to treatment, which are generally looked upon as more or less obsolete.

The etiology and pathology of the different subjects is good throughout the entire book, but the surgery of the nose and throat is too briefly considered to be of much benefit to any but the younger specialists.

The chapter on deformities of the septum is particularly comprehensive, and the one on therapeutics is novel and will be appreciated by those who want boiled down information in this line.

The cuts and illustrations are well selected and executed.

Taken as a whole, it is a valuable contribution to this class of medical literature and should find ready approval by those who want a book for ready reference in nose and throat work.

GENERAL SURGERY: A PRESENTATION OF THE SCIENTIFIC PRINCIPLES UPON WHICH THE PRACTICE OF MODERN SURGERY IS BASED. By Ehlich Lexer, M. D., Professor of Surgery, University of Königsberg. Edited by Arthur Dean Bevan, M. D., Professor of Surgery, Rush Medical College, Chicago. D. Appleton & Co., New York and London, 1908.

In giving the profession the English translation of Lexer's General Surgery, the authors express the belief that the work represents the present status of the subject of general surgery in a more complete way than any other text-book. The work deals with what is generally understood as the "science and art of surgery"—the general principals of pathology, therapeutics and operative technique; in short, the essential prerequisites for the thorough mastery of the subject as it applies to all fields of surgery.

Professor Lexer presents the modern conception of infections and immunity and points out the application of this knowledge to surgery.

The chapters on tumors, syphilis and (bone) necrosis are excellent. Mention is made of the Mayo method of treating varicosity, the treatment of neuralgia by the injection of alcohol or osmic acid, the Matas operation for aneurism, the Bier's passive hyperemia as a supplement to the treatment of inflammatory lesions, Kocher's technique in the use of anti-tetanic serum, X-ray burns, scopolamin-morphine narcosis, the spirochete pallida as the cause of lues, and the Mosetig-Moorhof wax for filling bone cavities.

The abstracts of Crile's work on direct transfusion of blood brings the volume thoroughly up to date in this department. The special chapter on blastomycosis—the potassium iodide and sulphate of copper treatment—is of unusual interest. The chapter on "Special Hematology" is satisfactory save in the consideration of the subject of leucocytosis. We are of the belief that this section could be greatly improved and that it does not offer the latest views in the interpretation of the blood picture from a surgical standpoint. The subject of opsonins and the Wright vaccination treatment are briefly stated in the last chapter of the work.

As a general surgery the book contains an invaluable fund of knowledge. The illustrations, 450 in number, are good, the index is satisfactory and the volume is presented in an attractive style.

CURRENT MEDICAL LITERATURE

J. E. TUCKERMAN, M. D., Cleveland.

THE SOURCE OF NASAL HEMORRHAGES
IN PREVIOUSLY HEALTHY PER-
SONS—TREATMENT.

Langworthy (Wis. Med. Jour., Oct., 1908, p. 243) states that severe hemorrhage is relatively infrequent, though often it is so violent and persists with such discouraging intermittency that anxiety is felt for the life of the patient. He advocates referring patients with nasal hemorrhages to a specialist, that the exact point of bleeding may be located and dealt with. The bleeding point is usually on the cartilaginous part of the septum, just within the anterior nares and about a quarter of an inch above the floor of the nose.

Of treatment Langworthy advises: "(a) Careful examination and discovery of the exact source of hemorrhage, if possible. This usually includes the use of such drugs in solution as cocaine, tannic acid and adrenalin chloride. (b) Cauterizing the bleeding area when practicable with pure chromic acid, silver nitrate or trichloroacetic acid. (c) Smearing a ten per cent. gelatin solution over septum with a soft swab. (d) Packing the nasal chamber with thin strips of gauze soaked in carbolyzed gelatin solution, so that the point of greatest pressure will be brought to bear on the site of active hemorrhage. A post-nasal plug is not often required. (e) Confinement in bed, supportive measures and such internal medication or treatment as may suggest itself. Internally I have used the calcium salts, gelatin, etc., but without observing definite results. Fluids, cracked ice, milk punch and beef peptonoids are certainly useful adjuncts. Packing should be removed no more frequently than is necessary to keep the nasal chamber clean. It is very necessary to allay the apprehension of the patient by constant encouragement. * * * No matter what may be considered an etiological factor, immediate tamponing is the treatment of election in all cases where hemorrhage is severe. Other treatment must be considered secondary. With careful inspection of the nasal chamber and discovery of the exact source of hemorrhage, posterior plugging can be dispensed with in most of the cases."

[No dosage is mentioned for calcium salts, and, as the author obtained no result from their use, we would repeat what has been before stated in

these columns: "No results need be expected unless the calcium salt be given in 10 to 20 grain doses every two hours for twelve to twenty-four hours." We are reminded of a patient whose posterior nares had been plugged twice by a good surgeon, only to bleed profusely a few hours after the removal of the packing. The third violent hemorrhage was controlled by a simple device. A wood splinter about three inches long was wound throughout its length with cotton, dipped in adrenalin solution (1-1000) and passed along the floor of the nose below the inferior turbinate. A second splinter was similarly passed above the inferior and below the middle turbinate. The projecting ends of the splinters were then cut off and seated in the little hollow at the tip of the nose, which can be felt by hooking the finger forward and upward just inside the external nares. This prevented the splinters being blown out in endeavors to clear the nose. Contrary to the usual custom, there were allowed to remain in position for four days and were easily removed after that by dropping oil in the nose several times a day until the tampons freed themselves, literally sliding out unaided.—Editor.]

THE TREATMENT OF FRACTURE OF
THE PATELLA.

The only sure way of getting good results in fractures of the patella is the open operative method. Batchelor outlines (New Orleans Med. and Surg., November, 1908, p. 332) his procedure thus:

"My technique in all cases has been to confine the patient to bed for forty-eight hours after the injury before operating and during this time to fix the joint and apply an ice bag. I have found that the difficulty of operation is very much reduced by this preliminary wait, sponging being much less necessary and consequently much traumatism of the joint obviated. During the entire time of operation it has been my custom to allow a 1-20,000 bichloride solution to flow through the joint, thus obviating the necessity for sponging and preventing the introduction of sepsis. The suture employed has been indifferently catgut or kangaroo tendon except in the first case, where the patella itself was wired with two silver wires. In every case immediate and complete closure of the joint was done, and primary union resulted

in each instance. The post-operative treatment consisted in immobilization of the joint by a posterior gutter splint, with confinement in bed for fourteen days, after which the patient was allowed to get up and walk, the leg remaining in the splint. The intra-articular pressure from weight bearing I have found to aid greatly in overcoming stiffness of the joint and in causing resorption of adhesions that may have formed, and, I believe, contributes greatly to restoration of the joint function. I have rarely found it necessary to practice passive motion for more than seven days."

In discussion of this paper, John Ochsner said:

"Regarding the method of treatment, the open suture operation is now on a sound foundation, and its value should be recognized. The use of foreign material for the co-aptation of fragments should be abandoned. I disagree as to the use of bichloride solution. Why not use normal salt solution? * * * There are two points I would like to call attention to: First, massage, particularly to the quadriceps extensor femoris, is a most valuable adjunct in the treatment of this form of fracture.

"It can be practiced very early, and with gentle, passive motion, starting as early as the twelfth, thirteenth or fourteenth day. Second, permeability of the callus to the X-ray. In cases five or six weeks after operation, when the fragments are in perfect apposition, there may exist an apparent interval between the fragments in a radiogram. This condition shows for quite some time after operation. At the same time, however, there will exist normal function. I dwell upon this so as to put the operator on his guard. Radiographs should not be shown patient, as he may have misgivings as to the correctness of the treatment. This is an extremely important point and one worthy of notice."

GASTRIC TETANY.

Brown and Engelbach (Surg. Gyn. and Obs., November, 1908, p. 558) define gastric tetany as "a grave complication of obstruction of the pylorus, characterized by attacks of bilateral tonic muscular contractures, beginning in the extremities and extending to the face, body and larynx." They desire to emphasize that the dilatation of the stomach which occurs in these cases is not the cause of the tetany, but that both are the result of the obstruction, which can be relieved by operative methods. They report a typical case where cure was effected by posterior gastro-enterostomy and give a review of the literature

on the subject of operations for the relief of gastric tetany. In summarizing the treatment they contend that obstructive lesions should be cared for "before they cause any serious obstruction to the pylorus." This means surgical treatment of chronic ulcers, cholelithiasis, etc. They urge symptomatic treatment during attacks, though medical treatment cannot be curative. This consists of stomach lavage, hypodermoclysis, proctoclysis and morphine hypodermatically. In the majority of patients operated upon successfully, pyloroplasty or gastro-enterostomy was done.

INDICAN URIA—TEST FOR INDICAN.

Potter (Merck's Archives, October, 1908, p. 317), while unable to state whether indican uria is the cause of symptoms or merely the index of a condition of which it is a symptom, still discusses the matter as though it were the condition to be remedied. Indican uria is often present when we have the following symptoms:

"Lassitude, weakness, irritability, drowsiness after eating, sometimes coated tongue with bad taste on rising, irregularity of bowels, headache, periodic attacks of vomiting—in fact, the cardinal symptoms long ago called biliousness, torpid liver, auto-intoxication or a 'run down' condition. Naturally these are not all constant symptoms, particularly as the stomach often is not at fault nor seemingly affected by indican uria and the patient has few objective symptoms. It has been fairly well established that indican originates from putrefaction in the small intestine."

The most satisfactory test for indican is:

"Equal parts of urine and hydrochloric acid are mixed in a test tube, and to these are added two drops of a solution of potassium permanganate. Into this is put a small amount of chloroform. The tube is then corked and inverted several times, and any indigo blue present in the solution will be absorbed into the chloroform and will gravitate to the bottom. The solution of potassium permanganate should be one-half of 1 per cent., and in such strength it will keep indefinitely."

The treatment of indican uria is mostly empirical. Milk and fruit diets give the best results. However, any diet the patient is able to digest properly should be used, for, after all, a normal digestion will preclude any excessive indican formation.

"Among the drug aids, creosote in pills of one minim each has caused the indican to disappear in some cases; salol in others, and rhubarb and

soda in still others; but perhaps a combination of pepsin and pancreatin, with a little sherry wine after meals, has been the most successful remedy tried."

THE CATHARTIC HABIT.

Under the heading, "The Pill Habit," The Medical Summary says:

"Nearly everybody is constipated. People are either too lazy or too busy to evacuate their bowels in the way and manner intended by nature. This leads up to the pill habit. Cathartics are our most useful form of medication, but catharsis is a matter that has its limitations and is easily overdone. Artificial stimulation of the bowels in time leads to a weakened condition of the muscular coat, with lack of tonicity. The natural and sensitive tone of the mucosa becomes somewhat dulled and calls for ever-increasing stimulation. The colon is the storehouse of feces, and very little absorption takes place from it. It is intended that the colon become somewhat full, and its contents when discharged into the more sensitive rectum sets up a reflex, which results in the defecation act. For this reason there should be some volume to the excreta. Man's twenty-five or thirty feet of intestinal canal make it imperative that a considerable residue be left over from his nutrient matter. Peristalsis depends largely upon this fact, and it is at once apparent that the more concentrated his food the more likely is he to be troubled with constipation. * * * The taking of cathartics is mainly a habit, and one which nearly any individual can educate himself out of if he will only take the time and pains."

UTERUS AND STOMACH.

Physicians are so wont to speak of the reflex disturbances of the stomach due to conditions of or in the uterus that it is well to inquire whether such inference is justified. Tussig (J. A. M. A., September 19, 1903, p. 1005) questions these supposed causal relations and on anatomic, physiologic and pathologic lines of study inclines to the belief that many so called "reflex symptoms" are due to general and not local conditions. He says:

"What impressed me most in my own series of cases was the frequency with which I found such a general cause—splanchnoptosis, neurasthenia, menopause, etc. I have already shown how the frequency of gastric disturbances in menstruation and pregnancy can be explained on the basis of an intoxication. And here we must remember that the organ that is most sensitive to intoxications

of all sorts is probably the stomach. How many of our infectious fevers begin with nausea and vomiting. It should not surprise us, therefore, if secretory disturbances of the ovary or placenta, acting oft times as toxins, produce likewise primarily gastric disturbances. These cannot, therefore, be called reflex symptoms, since they are due to a general cause.

"If we exclude, first, the cases in which physical conditions in the abdomen through relaxed walls and pelvic floor have caused gastric and uterine symptoms; second, the cases in which the condition of the blood, as in anemic or chlorotic individuals, causes altered function on the part of both the stomach and uterus; third, the cases in which there is hysteria, neurasthenia or a general neurotic temperament; and, finally, the cases of toxemia of one sort or another, what is there left to call reflex neurosis? A few cases, doubtless, will be found, but they will, I believe, be in ever diminishing number as our pathology is enriched and our methods of diagnosis made more accurate. Above all, let us hope that anatomists and physiologists will in the coming years tell us a little more about the sympathetic system. Until this time we should not be too positive in our assertions regarding reflex neurosis and be doubly conservative in advising operative interference for the relief of such conditions."

In discussion, Carstens gave some sound advice when he said:

"Some of the most troublesome cases to deal with are the very cases in which there are stomach troubles and nervous symptoms of various kinds, and these are the cases in which one can not be too conservative. I have the greatest trouble in convincing patients that they should not be operated on when they believe some wonderful results are possible in this kind of cases. It is sometimes possible to do some good in the way of fixing the uterus or a kidney that is loose, but in the majority of cases I warn against operation. These patients are born wrong. Their whole nervous system is wrong. It is not medical or surgical treatment that they need, but physical. These cases must be built from the ground up. Months and months of systematic physical exercise are required for this work. By much time and attention in this respect one can do wonderful work in developing the muscles and ligaments so that the abdominal viscera will keep reasonably in place and give them relief."

TO CLEAR THE CORNEA OF OPACITY.

Guillery states that primary opacity of the cornea from the action of lime or other metallic

caustics can be cleared up by chemically dissolving the opaque tissue. The best measure for the purpose is a mixture of ammonium chlorid and tartaric acid. This is applied to the cocaineized eye, beginning with a 4 per cent. solution of ammonium chlorid, to which from 0.02 to 0.1 per cent. tartaric acid is added. The ammonium chlorid can be increased to 10 per cent. and more, but no more tartaric acid should be added.—*Deut. Med. Woch.*

SOME FACTS ON CALCIUM LACTATE.

Calcium lactate is no official in any pharmacopeia, so far as we know. Calcium lactate is obtained in the preparation of lactic acid or may be prepared by dissolving calcium carbonate in warm diluted lactic acid, filtering while hot, and crystallizing. It occurs in white granular masses or powder, or in acicular crystals, odorless and having scarcely any taste. It is soluble in water (1 in 15), less so in hot water, slightly soluble in alcohol, insoluble in ether. The solubility of different specimens of calcium lactate varies considerably and is affected by age. It becomes anhydrous at 100° C. (212° F.). Calcium lactate increases the coagulability of the blood, and on this account is given before operations (1 or 2 gram doses—15 or 30 grains). It is said to be useful for chilblains and chronic ulcerations. It has been given with reported good results in hemophilia, purpura and some forms of albuminuria; in rickets and tuberculous disease. The dose is 0.5 to 4 grams (10 to 60 grains). It is much less irritant than calcium chlorid, and may be injected subcutaneously. The large doses now given may be suspended in water, or, as this salt is permanent in the air, it may be dispensed in powers or in cachets.—*J. A. M. A.*

CALCIUM CHLORID IN AORTIC ANEURISMS.

Ambrose reports a case in which, after weeks of treatment with potassium iodid, morphine, etc., the pain, throbbing and insomnia were steadily increasing. Improvement commenced almost immediately on taking calcium chlorid three times a day, and continued so that about two months later all symptoms, save an occasional slight headache, had entirely disappeared. The aneurism was clearly visible under the X-ray.—*Australasian Med. Gaz.*, Sidney, via *J. A. M. A.*

PICRIC ACID IN BURNS OF THE EYE.

Burns of the eyelids and conjunctiva, especially by lime, are of frequent occurrence, and any practitioner may be called upon to treat them. It

has long been known that a saturated solution of picric acid is one of the best applications to a skin burn, relieving the pain in a marvellous manner and acting as a powerful antiseptic. A. Fortunati, of Rome (*Annali di Ottalmologia*), after making experiments with rabbits' eyes and after long clinical experience, warmly recommends picric acid for treating burns of the conjunctiva and cornea, especially by chemical agents, including lime. He finds that a 2 per cent. ointment—picric acid 0.2 gm. to white vaselin (neutral reaction) 10 gm.—is better than a watery solution. He applies it twice or thrice in the day after the instillation of a few drops of cocaine. The results are surprising, especially in the direction of relieving pain. Symblepharon is infrequent after the picric acid treatment.—*British Med. Jour.*, August 29, 1908, via *Merck's Arch.*

A NEW SIGN FOR DETECTION OF MALINGERING AND FUNCTIONAL PARESIS OF LOWER EXTREMITIES.

An interesting and important test is presented herewith: If a normal person be asked to lift an extended leg (while in the recumbent position) from a couch, there will be complementary oppositional pressure of the other neel, which will dig into the couch when the free act of rising the extended limb is attempted.

The same opposition is present if a genuinely parietic patient be asked to raise the parietic leg. If this patient be asked to lift the normal leg against resistance, an oppositional pressure is developed in the parietic leg proportional to the voluntary power of which the patient is capable in this parietic extremity.

In two cases of alleged paresis of one leg, when resistance was offered to raising the normal leg, great opposition was developed in the alleged parietic leg.

In two cases of malingering, on this being explained to the patient, further attempt at fraud was abandoned, crutches given up and a normal gait resumed.—*C. F. Hoover* in *Jour. A. M. A.* for August 29, 1908, via *J. M. S. M. S.*

DRUGS SIMULATING SUGAR IN URINE.

Coleman states that the following drugs, when ingested, may cause the urine to reduce Fehling's solution and respond to some other tests for sugar: Acetanilid; arsenous, salicylic and dilute hydrocyanic and sulphuric acids; alcohol, amyl nitrite, chloral, chloroform, copaiba, glycerin, mercury, morphine, strychnine, turpentine.—*The Medical Council.*

COUNTY SOCIETIES

FIRST DISTRICT

"Effect of Flexner's Anti-Meningeal Serum in Epilepsy Epidemic Cerebro-Spinal Meningitis" was the subject of a very interesting paper before the Cincinnati Academy of Medicine on November 9th. The doctor reported forty-five cases of which thirty recovered. Three cases were of the fulminant variety. All cases are included in this report where the serum was used. He said it should be given by the intra-dural method. It shortens the duration of the attack and prevents sequella.

The First Councilor District Medical Society of Ohio met at the Academy of Medicine rooms November 16, 1908. H. J. Death, of Franklin, was elected President; Dr. J. C. Larkin, of Hillsboro, Vice President; John D. Miller, Cincinnati, Secretary; E. W. Mitchell, of Cincinnati, Treasurer. Remarks were made by the retiring President, A. W. Francis, of Ripley. An address by D. R. Silver, of Sidney, President of the Ohio State Medical Society. The following papers were read: "The Wassernati; discussed by Mark Millikin, Hamilton; lantern illustrations, M. L. Heidingsfeld, Cincinnati; discussed by Dr. Mark Millikin, Hamilton; "Fractures of the Elbow Joints," with lantern illustrations, Robert Carothers, Cincinnati; discussed by J. C. Larkin, Hillsboro; "Ectopic Pregnancy," W. D. Hamilton, Columbus; discussed by Drs. J. W. Rowe, W. D. Haines, C. L. Bonifield, E. Ricketts; "When Shall the Prostate be Removed," E. O. Smith, Cincinnati. The Society took dinner at the Gibson House. The next day was spent in clinics at the various hospitals in the city.

DR. McCORMACK IN CINCINNATI.

J. N. McCormack, organizer for the American Medical Association, spent November 16th and 17th in Cincinnati. He addressed the Academy of Medicine and the First Councilor District Medical Society at the Academy rooms on the evening of the 16th and gave a public address to the profession and the laity on the evening of the 17th. Dr. McCormack's talks were frank in the extreme. He did not mince words. He called things by their proper names and there were few bouquets thrown except those at Dr. C. A. L. Reed, whose candidacy for the U. S. Senate he advocated strenuously. He accused doctors of

backbiting and abusing one another, especially in the small cities, and not infrequently in the large ones. He regretted the fact that 50,000 doctors lived in rented houses worse than that of the skilled mechanic or laborer. Much of the strife in the medical profession is engendered in those hotbeds of strife, the medical colleges. He considered a department of health to be more important than the Supreme Court. Legislative bodies were inclined to pay no attention to the doctors because of the discord among them. He thinks that the future of the medical profession lies in organization for study and protection. He argued and quoted the figures to prove it that peace was worse than war. Two hundred and ten thousand men died as the result of battle during the four years of the Civil War. Seven hundred and fifty persons died of tuberculosis in the United States during the past four years. We lost sixteen soldiers in the Spanish-American War from disease to one in battle. He advocated the better remuneration of doctors, as a poor doctor was greatly handicapped and a menace to the country, as he could not properly prepare himself with books and instruments and the necessary things to successfully prosecute his profession. He compared the immense sums of money and the great skill expended by the government to prevent disease among animals, trees and plants and the neglect of the care of women and children and men. He advocated the giving of more authority to the medical department in the army. He related the great success of the Japanese army on account of its medical department, and spoke of the great work of medicine in the digging of the Panama Canal. The popular meeting was presided over by Governor-elect Harmon.

The Brown County Medical Society met Thursday, November 19th at 3 p. m. The program was as follows: "Icterus Neonatorum," Dan Millikin, Hamilton; "The Serum Treatment of Cerebro-Spinal Meningitis," Alfred P. Cole, Cincinnati; "Non-Penetrating Injuries to the Anterior Position of the Eye," Albert C. Carney, Hamilton.

SECOND DISTRICT

At the fifth annual meeting of the Second Councilor District, November 12th, the program was as follows:

Invocation, Rev. J. W. Clokey, D. D., pastor First Presbyterian Church, Troy; "The Clin-

ical Side of High Blood Pressure and Its Treatment," W. J. Conklin, Dayton; discussion, R. H. Grube, Xenia; J. R. Caywood, Piqua; "The Diagnosis of Surgical Diseases of the Abdomen," J. F. Baldwin, Columbus; discussion, C. S. Ramsey, Springfield, F. C. Gray, Dayton. 12:45 p. m.: Short address by D. R. Silver, Sidney, President of the Ohio State Medical Association; "The Treatment of Pneumonia," T. W. Rankin, Columbus; discussion, E. G. Husted, Greenville, J. W. Costolo, Sidney.

ABSTRACT OF PAPER READ BEFORE THE MIAMI COUNTY MEDICAL SOCIETY.

Dr. Keating, in his article, points out the scarcity of material in current medical journals, dealing with therapeutics, per se, and the inference usually made by the young physician that this important subject is neglected.

But the neglect is only apparent; for therapeutics depend upon a mastery of the fundamental medical sciences, without which its application may not only be irrational but absurd. Of first importance in the treatment of disease is the character of the physician himself. The safest and wisest doctor is the one who can think in the abstract. This ability is rarely gained in the medical school. The intensity of the daily tasks, the necessity of acquiring facts, and the spectre of coming examinations all preclude that habit of thought essential to the development of judgment and perspective—qualities so necessary to therapeutic wisdom. This must come later, and it must be acquired, not by study of text-books but by analysis of the doctor's own cases. The complex picture must be resolved into component parts, and observations recorded.

The doctor may blindly follow his teachers, using only acquired knowledge, and he may succeed. But only by persistent new work can he become independent and competent. The medical gynecologist who paints and swabs the unoffending uterus, which is only offering evidence of chronic constipation, and the surgeon who alters its moorings for like cause, are examples of those who fail to think.

In treating and curing disease, the doctor must ever be a learner. An alert and questioning mind will make his therapy more scientific. It will stimulate him to a better knowledge of dead and living pathology, which is as necessary as that of remedies. Indeed few important advances in therapeutics have been made by the primary study of drugs. Fresh air and good food, aided by judicious use of well-known remedies always cured

tuberculosis, but doctors never realized it until they knew the cause and pathology of that disease.

Ability to successfully cope with disease is directly proportionate to an understanding of the basic medical sciences, given the properly-trained physician. This ability will be augmented and fostered by love of truth for its own sake, which will lead to the discovery of new remedies. Thus preventive medicine is curative medicine. Lacking a willingness to use every known means, medical, mechanical or psychical, omitting the search for new light, the physician of today will soon become obsolete. He will continue to give medicine for cough and opium for diarrhea. He will fail to realize that he is the custodian of the community's health. The modern doctor must know that no longer is it sufficient to "relieve suffering and prolong life." He must prevent suffering and save life. The people are fast realizing that they are not paying him for cascara and epsom salts but for advice and guidance. The doctor must make that advice and guidance worth while.

FOURTH DISTRICT

The Surgical Section of the Academy of Medicine of Toledo and Lucas County met October 23d. The general subject for discussion was "Ectopic Gestation." Clarence D. Selby read a paper on the "Mystery of Ectopic Gestation." He said in part:

An ovum, non motile cell, is thrust from the walls of the ovary destination *cavum uteri*. A spermatozoon, motile cell, is deposited in the *cervix uteri*, destination ovum. At the physiological moment the tiny tendrils of the fibrinated extremity reach forth and guide the ovum into the *ostium abdominale*. Safely within it is conducted by peristalsis and ciliary motion through the tube to its appointed destination—a mighty journey considering the size of the cell and its helpless condition. That it makes it in safety is wonderful. However, some one has said there are 80,000 of them.

With the fervor of the male seeking his affinity, the spermatozoon rushes upward in quest of the ovum. Through the uterus he wiggles into the tube, and he wiggles onward until he meets the ovum. The trysting place is within the tube just beyond the *ostium internum*. Do they meet there, all is well; they journey to the *cavum uteri*—as one.

Do they meet elsewhere, or for any reason is the ovum after the meeting unable to reach the uterine cavity, there is trouble, there is ectopic gestation.

In brief, any circumstance or any condition

whatever that prevents the fertilized ovum from continuing on to the uterine cavity is theoretically a cause of ectopic gestation. It is very simple. The Fallopian tube is abnormal it cannot conduct the ovum to the uterus, yet is unable to prevent the ardent spermatozoon from approaching the ovum; result, extra uterine development of the fertilized ovum. It is so easy to understand how developmental anomalies of the tube, adventitious compressions and distortions, inflammations, etc., would not produce an ectopic gestation. Perhaps in the case of complete occlusion it may not be quite so clear, but one hears much about transmigration, how the baffled ova cell crosses the pelvis and coyly submits to the embrace of the fimbriae of the opposite tube, the spermatozoon awaiting expectantly just within the ostium. The ovum is fertilized and is carried downward, but the fecundate ovum grows rapidly; it outgrows the size of the tube and stops, hence, ectopic gestation.

With so many logical reasons for ectopic gestation, one might grow skeptical of its possibility in the face of normal conditions. However, one must remember that the spermatozoon persists in his upward flight, if need be throughout the entire tube. Several cases are reported in which a fertilized ovum was found within its graafian follicle, and as a matter of fact, there are many cases of reported ovarian pregnancy associated, as they must be, with normal tubes.

There is about one ectopic pregnancy to five hundred normal pregnancies. However, it is not probable that but one woman in five hundred has abnormal organs of generation. There are a number of theories to explain ectopic gestation.

Webster's theory is that in the early types of mammalian development, the uterus is bicornate. The fallopian tubes of women are rudiments of these uterine cornua. Ectopic gestation occurs in those women in whom is a functional or structural reversion to this type, and the stronger the tendency to reversion the greater is the liability to ectopic gestation.

Lawson Tait suggested that the ovum requires a denuded surface for attachment. Salpingitis would furnish this condition, but tubal pregnancy has occurred without evidence of salpingitis. Nor does the uterus become denuded in the natural sequences of uterine pregnancy.

Ectopic gestation is most frequent between the ages of 25 and 30; 86.8% of the patients have not born children.

It is frequently preceded by a period of sterility. There is a slight tendency to recurrence usually, of course, in the tube of the opposite side.

Any condition, congenital or acquired, functional or structural, that detains the fecundated ovum outside of the uterine cavity is sufficient cause for ectopic gestation. There need be no mystery. The helpless ovum is the innocent agent, whether she be met prematurely by an over-zealous spermatozoon, or detained by the incompetent tube.

William J. Gillette read a paper upon "The Treatment of Extra Uterine Pregnancy." Dr. Gillette traced the history of the extra-uterine pregnancy from the time of Albucasis in the eleventh century, who is credited with describing the first case. In 1594, the first operation was known to have been done. The classic operation done by Primrose in 1594 on a patient at full term was described in detail. The first operation done in this country was by John Bard, a New York surgeon in 1764. Dr. Gillette said that in 1888 he had heard Lawson Tait say that he had stood by, and seen twenty-five or thirty of these cases die before he could screw up his courage to the point of operating.

By reason of the dangerous nature of an ectopic gestation and before surgery was fully recognized as the only rational way of dealing with it, many kinds of treatment were proposed and employed, which are now but medical curiosities. All of them had in common for their object the death of the ovum, trusting to nature for its removal afterwards. Drugs as potassium iodide and strychnia were given. The mothers were bled, purged, dieted and also even suggested to syphilize the patient. The fetal sac was punctured and morphine injected into it. Electricity, however, had the greatest reputation and was the last of these various methods to give way to surgery.

Among the operations first proposed was that of elytrotomy or opening into the fetal sac and removing the contents by way of the vagina, an incision made either with knife or galvano-cautery. Dr. Gillette once did this operation when patient refused permission to open the abdominal cavity. This patient recovered, but the operation had a high mortality.

Operation has also been done by way of rectum, but with unfavorable results.

It is pretty well conceded that all ectopic gestations occur at some place in the fallopian tube. As the fetus grows, the tube ruptures, usually between the sixth week and the fourth month. When the fetus escapes, it can travel into the abdominal cavity or into the broad ligament between its folds.

Diagnosis should always be made between these two forms of gestation before operation is to be considered, for rupture into the general cavity constitutes one of the very gravest of the dangers that the parturient women ever encounters, demanding a prompt surgical interference to save her. On the other hand operation should be delayed in ruptures into the broad ligament, because the hemorrhage soon ceases. There is a chance too that the child may live in the broad ligament, and this chance should never be denied the mother. If the child dies in the later months of pregnancy with suppuration, it should be treated as any other pelvic abscess by incision.

The presence of adhesions between the cyst and abdominal wall is an important matter to consider in operations at full term. The child too may be firmly adherent to the inner wall of the sac. It is more advisable to enucleate the entire sac than to risk hemorrhage by separating adhesions in removing the placenta. If at the time of operation, the placenta by rupture of the sac has escaped from it, as in rare cases happens and reattaches itself to kidneys, liver, intestines or other abdominal viscera, it should be left sacredly alone, until it spontaneously loosens, which usually happens in eight or ten days.

Dr. Gilette recently reported a case before the Academy of Medicine, operated at eleven months and the sac removed entire without serious hemorrhage.

The cases reported in which the child is said to have grown among the intestines, without any enveloping membrane are open to question.

The question of time of operation was considered. Dr. Gilette operates at as early a date as possible, whether the patient be in profound shock or not, and after a wide experience never lost a single case, opening the abdomen and rapidly ligating a bleeding tube adds but little to the danger of the patient's position, and as soon as this is done, the situation is under control. One rule is important to remember and that is the well-known fact that the first onset of rupture is seldom if ever accompanied by a sufficient amount of hemorrhage to endanger a woman's life.

Hunter Robb's experiments upon dogs in which he divides the uterine and ovarian vessels, leaving them to mature, leads him to the conclusion that "the internal abdominal hemorrhage in women suffering from rupture of an ectopic gestation is not sufficient in itself to cause a fatal determination," and that "death is caused mainly by shock and the superadded shock of an operation is likely to be dangerous."

The points Dr. Gilette especially emphasized are: (1) When rupture takes place into the broad ligament, the case should be left to itself and operated prior to nine months, only when distinct indications for such operations are present. (2) Cases of shock accompanied with a small amount of hemorrhage are those in which operation may be delayed with safety and possibly with benefit, but on the other hand, that cases of collapse due to profuse hemorrhage should not only be operated without delay, but operated where found. (3) That good ethics do not permit us deliberately to wait for the death of the child before operating.

C. N. Smith read a paper upon the "Symptomatology and Diagnosis of Ectopic Gestation."

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Toledo and Lucas County met October 30th. The general subject was "Cataract."

Charles Lukens read a paper upon the "Etiology of Cataract." He said that the etiology may be summed up in a few words—disturbed nutrition of the lens. Dr. Lukens described the anatomy of the lens in detail. He said that the lens is ipiblastic and its growth continues throughout the life of the lens by the growth of the layers of epithelial cells applied to its surface beneath the capsule. These cells become transformed into lens fibres and lose their nuclei somewhat analogous to the growth of a tree. The hyaline membrane is structureless and impervious in the living healthy state so crystalloid osmosis, but allows osmosis of certain colloids. It is by osmosis through this membrane that the lens gets its nutrition.

The protecting and regulating influence of the lens capsule was described. The effect of alterations in the lining epithelium, or changes in the surrounding media were described. Becker and Deutschman consider the cause of senile cataract to be an unequal sclerosis of the older lens fibres, while Schon attributes it to excessive accommodative effort, which throws the capsule into small wrinkles near the equator of the lens, leading to a proliferation of epithelium in this region. Peters considers a cramp of the ciliary muscle responsible for an irregular supply of nutrient lymph, to be followed by a shrinking of the nucleus.

Senile cataract is always bilateral and for this reason persistent efforts have been made to find some general dycrasia as a cause. Albuminuria has been found in 33% of a series of senile cataracts, which for this reason have been called

cataracta nephritica. However, the general consensus is that albuminuria does not stand as an etiologic factor.

Glycosuria is present in one per cent of cataracts, but research has shown that a much higher percentage of sugar in the media was required to produce opacity of the lens than is ever found in the worst diabetic, and again cataract is the exception in diabetics.

Michel tried to prove that cataract depended upon atheroma of the carotid arteries. General angiosclerosis, particularly of the eyes, has its advocates. Suker states that there is not the slightest doubt but that the majority of the incipient senile cataracts are due to an angiosclerotic process, involving especially the long and short ciliary and the choroidal arteries and veins. Jackson, on the contrary, stated that he did not believe cataract to be closely associated with vascular disease, but is most nearly explained observations in the direction of a poisoning of the lens substance, some sort of auto-intoxication.

Romer has acytotoxia theory as to the causation of senile cataract. He follows Ehrlich and his lateral chain theory and proves to his own satisfaction that a lens toxin may be formed in the body. After the lens of the cell have been poisoned, an active osmosis occurs with resulting cataract.

Risley showed that in 50% of the senile cataracts there was a history of weak eyes and asthenopia, choroiditis and vitreous opacities were also noted; owing to this, Risley maintains that a majority of senile cataracts are dependent upon reino-choroidal disturbances. By these disturbances is included choroidal hyperemia, irritable fundus, flannel red retina, moth-eaten retina, pepper and salt macula, vitreous opacities and abnormal pigment deposits.

Gould says that cataracts are partly due to nutritive conditions set up by the severe strain of presbyopia added to that of pre-existing ametropia.

Dr. Lukens draws the following conclusions: (1) The etiology of senile cataract is in many cases obscure. (2) No single etiologic factor can account for all cases of so-called uncomplicated senile cataract probably depend upon nutritional disturbances of the uveal tract. (4) Asthenopia, clinically is responsible for many of these uveal disturbances; consequently measures which will relieve asthenopia, e. g., careful refraction alternatives, sedatives and hygienic means, and prophylactic to cataract.

Otto Landman read a paper on "Treatment of Cataracts." Treatment may be by glasses, drugs

and operation. The treatment by glasses is based upon Schon's theory that errors of refraction may be a contributing cause of senile cataracts. If we admit the truth of this assumption, there is a reason for correcting errors of refraction.

Cataracts are variously treated by drugs and allied agents. Greene has made a report of the relationship between arterio-sclerosis, raised blood pressure and cataracts. The arterio-sclerosis, as well as the cataract, may be due to the imperfect nutrition of old people, and all efforts should be made to better the general nutrition. Dr. Landman uses hot boric acid applications twice daily for a period of five to ten minutes and prescribe a 4% potassium iodide solution to be instilled in the eye three times a day. Von Pflugk injects a 1% sol. of potassium iodide under the conjunctivæ in incipient cataract and reports beneficial results. It may be followed by conjunctival adhesions, choroidal or retinal hemorrhages. This procedure, published four years ago, has not been adopted in the large clinics of Europe.

Romer treats incipient cases by an organo-preparation made from animal lenses. He reported positive increase in vision and good results. Operative treatment is preceded by local and general measures. Any pathogenic bacteria must be removed by appropriate treatment. If there is a dacrocystitis, the sac must be extirpated. If there is ozoena, the puncta must be closed by an electro-cautery. All being in readiness, the eyes are cocaineized, the lids separated by an assistant. Some operators remove the speculum after the iridectomy, if one be done and the main portion of the lens has been extracted, using the lids to expel the remaining cortical substance. The incision is made with a Graefe knife and should embrace one-third of the periphery of the cornea. The capsule may be incised with cystotome. Dr. Landman reaches the conclusion, after seeing many operators, that they do not always incise the capsule as they claim.

The operative technic was described in detail.

The after treatment consists of a two-third day's rest in bed on a liquid diet. The methods of dressing and atropine instillations were described.

The various accidents and complications were considered. The iris may fall before the knife, but no great harm can come from cutting it off. If the vitreous escapes, it may or may not be cut off. The most fatal complications is a serious hemorrhage from the internal choroidal vessels, and when this occurs, sight is lost. The prognosis in diabetic cataract is almost as good as non

diabetic. When there is pathologic increase of tension, the operative procedure is altered.

Concerning the artificial ripening of cataract, it can be stated that any method which injures the capsule sufficiently to make a break in its continuity can hasten the ripening.

J. H. Harvey read a paper on "The Diagnosis of Cataracts."

The Academy of Medicine of Toledo and Lucas County held a general meeting November 6th. Thomas Hubbard presented a paper on "Bronchoscopy and Oesophagoscopy." Dr. Hubbard gave a cursory review of the development of this special art, giving special attention to the methods as practiced at Freiburg, in Killian clinic. He compared the original invention of Killian with that of O'Dwyer intubation, each having given to medicine a perfected surgical procedure with a complete armamentarium. Intubation paved the way for direct bronchoscopy by demonstrating the tolerance of the larynx to dilating tubes. Direct laryngoscopy has opened a new field of laryngeal diagnosis and surgery, and while it does not supplant the older methods it makes surgical operations within the larynx more precise and efficacious. The study of the trachea for the purpose of treatment of surgical conditions, such as stricture and locating the area of pressure by tumors of the neck and mediastinum, is made possible. The application of bronchoscopy is chiefly for the removal of foreign bodies. Numerous operators report results which justify the prediction that the mortality in such cases will be reduced from 25-30 per cent to 10-15 per cent. Tracheotomy need be resorted to only in exceptional conditions, the operation being possible in more than half the cases under cocaine anesthesia, the straight tube of size appropriate to the age of the patient can be passed under direct inspection to the first division of the right or left bronchus, and in some instances it is possible to enter the left upper lobe and lower lobe bronchus and the right middle and lower lobe bronchus. The right upper lobe bronchus is rarely entered. The possibilities of this work are great, one special feature being that by this method of precision that very considerable number of cases in which positive diagnosis is impossible by the old methods can be studied with accuracy. One point is particularly emphasized. With this method available there is no occasion for that fatal period of delay which so often renders any surgical procedure futile. The operation is comparatively simple if undertaken promptly.

Oesophagoscopy gives promise of developing a very broad and useful application. Jackson, of Pittsburg, has done much to perfect this special art, and he has succeeded in studying even the gastric mucosa and removing foreign bodies from the stomach. The surgical treatment of diseases of the oesophagus is made more effective and foreign body extraction is developed to a high degree of precision.

The paper was followed by a demonstration of technique of oesophagoscopy on the living subject.

FIFTH DISTRICT

The Erie County Medical Society met at the Court House, October 28th, at Sandusky, and devoted all the time to an address by Rev. W. Ashton Thompson on the methods employed at Emmanuel Church in Boston in class work among the sick. Mr. Thompson is rector of the Episcopal Church in Sandusky, but has recently removed to this place from Boston.

The class work was commenced for tuberculosis cases. They were referred to the class by their physicians, who continued to direct their treatment, but the class was to talk over the things that the patient could do to help himself in the line of correct living, good food, fresh air, rest, and to give the sense of having sufficient personal attention. These classes were limited to twenty-five members and they meet once a week. They are conducted by the combined efforts of the minister, the physician and the teachers.

The progress of each patient is noted from a record which he is taught to keep. Prizes are offered for the ones who make the greatest gains in weight, or in any other point, so as to introduce a feeling of pleasant rivalry, and get the right mental state to assist in the recovery.

The work extended to other diseases, especially mental cases, where all sorts of mild curable conditions are taken in. They are helped by the uplift from proper medical supervision combined with the psychic help which the minister can give. The results are wonderful. Dr. Cabot is one of the originators.

The address was discussed by Drs. Storey, Graefe, and Merz.

SIXTH DISTRICT

The Summit County Medical Society held its regular monthly meeting November 3d at Akron. The program was as follows:

"Inflammation Affecting the Uterus," G. C. Radcliffe. Dr. Radcliffe said in part: The in-

flammatory affections of practical interest are confined to the mucous membranes. An inflammation of the muscular structure is rare, and except in the puerperal condition is never diagnosed during life. A classification might be made of circulatory, toxemic and infectious endometritis. I am not sure that circulatory and toxemic affections can cause an actual inflammation, but there is no doubt that they are responsible for many conditions presenting the symptom as such. The infectious cases are classes according to the infecting organism. An enumeration of them would include all the pathogenic bacteria. The symptoms are merely suggestive as they may be present in the absence of any appreciable lesion, or absent in the presence of the condition under discussion. The same symptoms may be caused by neoplasm. The diagnosis may be tentatively made from the symptoms. In case there is a discharge from the cervix or endometrium the infecting organism, if there be one, may be found in it. A positive diagnosis can only be made from an examination of the scrapings removed with a sharp curette. Moreover this ensures that one does not overlook malignancy. In the acute cases rest in bed is about the only remedy. Active interference short of removal of the entire uterus is more apt to make matters worse. The application of antiseptics to the interior of the uterus or cervix is useless, probably because it does not get into the glands. Caustics and escharotics are dangerous because the action can not be controlled. In the circulatory and toxemic forms the cause should be removed if possible and the uterus left alone. In the chronic forms generally, the sharp curette is the most effective remedy. "Benign Affections of the Uterus, Non-Inflammatory," H. H. Jacobs; "Malignant Disease of the Uterus," I. C. Rankin, who said in part: This is the discouraging part of gynecology, for no matter how early a diagnosis or how complete an operation you are always confronted with the possibility of a return. He divides malignant disease into carcinoma, sarcoma and malignant adenoma, which he believes is properly a form of carcinoma. Carcinoma may be found either in the fundus or cervix, but usually in the latter. Cancer of the cervix is schirrus or hard medullary or soft and epithelioma. The first two give metastases and grow rapidly, while the latter grows slowly and superficially downward into the vagina and does not give metastases. After ulceration has begun the different varieties are indistinguishable. Cancer of the vaginal portion of the cervix usually extend laterally, while cancer of the upper portion of the cervix spreads rap-

idly to the uterus and connective tissue. When the broad ligament becomes involved, the uterus becomes less mobile and pain is a prominent symptom. In disease limited to the cervix, pain is rarely present. The pain is dull, gnawing sensation, with sharp shooting pains into the back and down the thighs. Hemorrhage is an early sign and discharge follows after ulceration has begun.

Radical or operative treatment is possible only when the tumor is limited to the uterus, or with very slight involvement of the broad ligament and pelvic glands, but the bladder and rectum not involved, otherwise palliative measures should be used which consist in cauterization of the cervix to lessen hemorrhage and discharge. If complicated by pregnancy, amputation of the cervix may be advisable. Pregnancy seems to aggravate the condition. The more radical men believe that by extensive dissections and careful removal of pelvic glands they can eradicate the disease. Among them are such men as Professor Wertheim of Vienna. R. Stansburg Sutton characterizes these extremely radical operations as "Surgical Gymnastics," and not productive of sufficient good to warrant the procedure. He also claims that a greater number of years of life can be saved by operating all lacerated cervixes, as 85% of all cases of cancer occur in old tears.

Sarcoma of the uterus usually grows from the muscle tissue, but may diffusely affect the mucous membrane, giving rise to hemorrhage and watery discharge containing a soft brain-like substance which shows usually a marked round cell infiltration of the mucous membrane. An operation on a sarcomatous growth of an internal organ is worse than folly as it does absolutely no good, and usually does harm.

The Summit County Medical Society met in special session November 5th to discuss the advisability of taking up post-graduate work as outlined by the American Medical Association. The Society voted to take up the work, but to have only two post-graduate meetings a month to start with and at the same time keep up the meetings of the Society as heretofore.

The twelfth session of the Union Medical Association of the Sixth Councilor District was held in Akron on Tuesday, November 10, 1908, at 10 a. m. The program was as follows: "Noteworthy Epidemics," C. E. Norris, Akron; "Vaccination and Serum Therapy," George F. Zinniger, Canton; "The Modes of Spread of Certain Infectious Diseases," William T. Howard, Cleve-

land, Professor of Pathology, Western Reserve University; "Public Morality as Related to the State Medical Act," D. R. Silver, Sidney, Ohio, President State Medical Association; "Quarantine and Health as Related to Our Public Schools," C. O. Probst, Columbus, Secretary State Board of Health.

The above program was carried out, with the exception of Dr. Howard's number. He was unable to come on account of sickness. About one hundred and twenty-five were in attendance. Two good clinics were presented at the City Hospital which were well attended and appreciated. Just before lunch the local physicians gave the visiting physicians an automobile ride over the city. The addresses of Drs. Silver and Probst were open to the public, and announced for 3:30. Nearly twelve hundred people assembled to hear these gentlemen. Mostly school teachers and professional men. Their addresses were of the right kind and delivered in the right way for such an audience. They were well received and much talked of in the community.

At 7 o'clock about one hundred doctors and their wives sat down to an informal dinner at the Y. M. C. A.

At 8 o'clock a large audience assembled again at the church to hear Charles A. L. Reed give his address on "Questions of Public Welfare." This also made a good impression in the community. The whole medical profession of the county (Summit), regardless of school or party, was invited to attend. As a result a very friendly feeling exists between the doctors, and a better understanding between the doctors and people, because of these enlightening addresses. It is very evident from the interest manifested in this meeting that districts will do well for awhile to hold this kind of meetings so as to give the laymen a chance to see and know what we are really trying to do.

The next meeting will be held in Massillon on the second Tuesday in February.

VACCINATION AND SERUM THERAPY.

Abstract of a paper read by George F. Zininger, Canton, Ohio, before the above meeting of the Union Medical Society of the Sixth Councilor District.

The paper opened by the author's defining the terms, "vaccination," "serum therapy" and "vaccine therapy," and at once proceeded to the discussion of the principles underlying the same. Infection before the work of Pasteur was considered a chemical process, but he clearly showed that it is a vital one. Prof. J. K. Mitchell in

this country antedated Henle in Germany, in contending that infectious processes are due to a *contagium vivum*. Infectious processes establishes immunity. Immunity was classified as natural and acquired: the natural being non-specific, while the acquired is specific. The acquired is classed as active and passive, the active resulting from vaccination, while the passive is merely the transference of the products of an active immunity. The active can be produced in a great variety of ways, viz.: Using attenuated virus, non-lethal doses of a virulent virus, the products of the growth of bacteria in an artificial medium, etc.

There are a number of theories of immunity, but the only two meriting attention are the phagocytic championed by the French school and the humoral of the German. The process of phagocytosis was observed by the older pathologists, but it was Metchnikoff who saw in the process the defense of the body, and ingeniously elaborated the phagocytic theory of immunity. Early in these studies the Germans for the most part, observing that blood serum was bactericidal, and the following up the facts demonstrated in the Pfeiffer phenomenon, elaborated the so-called humoral theory of immunity. As time, study, and investigation has elaborated both these theories we find that they are not so fundamentally distinct as would first appear. As to the mode of action the author classified immunity as anti-toxic being protective against bacterial toxins; the bacteriolytic against the bacterial organisms themselves, producing bacteriolysis; the phagocytic by virtue of the opsonins rendering the bacteria a prey to the leucocytes.

The protection afforded the system by active immunization by vaccination is historically represented by smallpox and vaccina, accidental discoveries by keen observation of natural processes, differing thereby from the later work of Pasteur, Behring, and a host of others whose work was the result of a process of building up, by inductive reasoning from laboratory experiments. As an example in active immunization the enduring work of Pasteur, who by exalting the street virus of hydrophobia by passage, and then by attenuating this exalted virus by drying, gave the world a method of protective vaccination used to this day.

In 1892, Behring proved the protective value of immunization in diphtheria by the passive method as likewise did, Kitasato in tetanus, and still later many workers proved the comparative value by numerous methods of active and passive immunization in cholera plague, typhoid, pneumonia, tuberculosis, etc.

Diphtheria and tetanus are the two diseases in which protection is afforded by the method of passive immunization, and we have in diphtheria, tetanus, and epidemic cerebro-spinal meningitis, the only examples in human diseases wherein the serum treatment is positively curative; in the first two forms acting as antitoxic sera and the latter probably as antitoxic and bacteriolytic.

The failure of the anti-tetanic serum in practice is not in its failure to act positively and specifically, but to the one fact, viz.: that when the disease once manifests itself clinically the tetanus toxine is already anchored to the nerve cells of the cord and therefore too late to administer the serum. Given prophylactically its action is almost perfect.

The anti-streptococcic, staphylococcic, typhoid, plague, cholera, etc., etc., are not antitoxic, but bacteriolytic sera, and their use as therapeutic agents is yet in the experimental stage and as yet, no such brilliant therapeutic results are possible as with the use of the antitoxic sera.

Opsonic therapy acts by virtue of calling into play the phagocytic type of immunity. Opsonins are distinct entities, existing in the serum, and can be artificially increased by vaccinal injections. They act, not by virtue of leucocytic stimulation by specific stimulins, but by acting on the bacteria, so to speak sensitizing them, so as to fall a prey to the leucocytes. The various plasma have their various but definite indices, while the leucocytes are quite indifferent. The results of this treatment are yet experimental, however, the results in the more chronic infections, especially in acne, boils, gonorrheal lesions and colon bacilli infections have been exceedingly promising.

It will add to clearness to sum up that of immunity, we have natural and acquired, and that the acquired may be active or passive. As to the mode of action we have antitoxic, anti-bacterial or bacteriolytic, and phagocytic immunity. The antitoxic can be heightened artificially to an enormous degree and is only possible in the case of those bacteria which produce a soluble toxine, when grown in artificial media. The use of these antitoxins are the only healing sera we possess. They act by direct chemical action and in human medicine are represented by diphtheria, tetanus, and botulismus poisoning.

In antitoxic immunity the action of the healing sera is by direct chemical union with the toxine and is active against the toxines of the bacteria and not against the bacteria themselves; while the bacteriolytic immunity is the immunity which obtains against the germs which belong to the class producing no soluble toxine when grown in

an artificial media; it can be heightened to only eight or ten times the initial fatal dose; the immunity is not antitoxic but bactericidal, and in its mode of action two substances are involved: One thermostabile and resulting from our process of immunization, and the other thermolabile and existing in all normal sera.

That Ehrlich's side chain hypothesis more nearly explains all the facts of the *modus operandi* of antitoxic and bacteriolytic action; and finally that phagocytic immunity and opsonic therapy is based on the fact that the specific antibodies known as opsonins sensitize or modify the invading bacteria and rendered them a prey to the phagocytic action of the leucocytes.

The regular meeting of the Stark County Medical Society was held at Canton Tuesday, November 17. The program was as follows: Lectures: "Adenoids in General Practice," M. C. Foulks, Canton; "Complete Removal of the Pharyngeal and Faucial Tonsils," G. L. King, Alliance; "Some Office Cases," J. A. Rheil, Malvern; "The Neglected Drugs: A Plea for the Re-establishment of Formerly Accepted Therapeutic Agents," H. A. March, Canton. Case reports: "Lumbago," L. B. Santee, Marlboro; "Anomalous Pregnancies," C. P. Wolf, Massillon.

EIGHTH DISTRICT

The fifth annual meeting of the Eighth Councilor District was held at Athens November 19. The program was as follows:

Morning session.—Address of welcome, B. R. LeRoy, Athens, Athens County Medical Society; response, A. L. Pritchard, Nelsonville; reading minutes of last meeting; business.

Afternoon session.—"A Teacher of Morals," P. H. Stedem, Newark; "Obstruction of the Intestines," W. A. Melick, Zanesville; "Diabetes Mellitus," A. H. Smith, Marietta; "Vital Statistics," F. L. Watkins, Columbus; "Obstetrical Indications for the Methods of Artificial Dilatation of the Cervix," W. D. Porter, Cincinnati; "Adenoid Vegetations of the Pharynx," J. C. Fountain, Somerset; "Injury of the Abdominal Viscera Without External Evidence of Trauma" (with report of cases), Sherman Leach, Columbus; "Surgery of the Prostate," H. I. Sutton, Zanesville.

The above papers were thoroughly discussed by the members as well as by guests from without the District who were invited to participate by the President.

The guests reading papers were W. D. Porter, Cincinnati, and Sherman Leach, of Columbus.

There presence was much appreciated and their papers very much enjoyed. Among the guests from without the District who took part in the proceedings were W. D. Hamilton, of Columbus; Hugh F. Lorimer, of Chillicothe; W. R. Dabney, of Marietta, and Brooks F. Beebe, of Cincinnati.

The following officers were elected for the ensuing year: President, N. T. McTeague, of New Lexington; Secretary and Treasurer, W. E. Wright, of Newark. The Society was very cordially and pleasantly entertained in the evening by E. H. Rorick at the State Hospital.

The one hundred and seventieth monthly meeting of the Muskingum County Medical Society was held November 11, at 8 o'clock, at which the following program was given: "Carbuncles and Abscesses" (with report of case), C. M. Lenhart; "Vaginal Hysterectomy for Prolapsus Uteri Entire, with Recovery of Case" (report of case), W. C. Bateman.

TENTH DISTRICT

At the regular meeting of the Columbus Academy of Medicine, November 2, the following paper was read: "Psychic Training in the Treatment of Neurasthenics," G. T. Harding; discussion by Drs. Whitaker, Kinsman, Deuschle and Brown.

At the regular meeting of November 16 the society entertained C. F. Hoover, of Cleveland, who presented a paper on "Vagus Neuritis." The paper was followed by a lunch at the Busy Bee restaurant. The attendance was large.

The annual meeting of the Madison County Medical Society will be held in London, Wednesday, January 6, 1909. These annual meetings are looked forward to by members of the society with a great deal of pleasure, and they are using every effort to make this the banner meeting. Men of national reputation have accepted invitations to read papers which will be of practical benefit to the profession. The afternoon session will be for the professional men of the county and the night meeting will be open to the public. A cordial invitation is extended to the members of the profession to attend this meeting.

The regular meeting of the Madison County Medical Society was held at the Court House, in London, Friday, November 27th. The society has taken up a prescribed course on diseases of the lungs and throat and are carrying it out in a systematic and practical way. The program for the last meeting was as follows: "Etiology of Tonsillitis," B. W. Meyer, West Jefferson; "Pa-

thology of Tonsillitis," W. W. Snyder, London; "Symptoms and Varieties," F. L. Wilson, South Solon; "Diagnosis and Prognosis of Tonsillitis," W. H. Christopher, London; "Treatment of Tonsillitis," M. C. Sprague, Summerford; "Etiology of Diphtheria," Harry Christopher, London; "Pathology of Diphtheria," A. Delaplane, South Solon; "Symptoms and Varieties of Diphtheria," R. H. Trimble, Mt. Sterling; "Diagnosis and Prognosis of Diphtheria," A. F. Green, West Jefferson; "Treatment of Diphtheria," M. J. Jenkins, Plain City. At the next meeting "Pneumonia" will be the subject for consideration. The meetings have been changed to the morning for the convenience of the members living a distance from London.

Preparations for the annual meeting, which will be held in London the 6th of January, 1909, are already under way. It is the desire of the society to make this the best annual meeting the Madison County Society has ever held. Invitations have been extended to some of the best men of the profession in the United States, and a great number have signified their willingness to be with us. The society extend a hearty invitation to all the members of the profession to meet with us and enjoy this love feast.

NEWS NOTES

The next State Board examination will be held December 8-10.

T. E. Courtright, formerly of the Vendôme, Columbus, has removed to 16 South Third street.

J. A. Kimmell, Findlay, has been elected president of the Association of Big Four Railway Surgeons.

E. C. Logsdon was recently elected president of the board of physicians to the Bethesda Hospital, Zanesville.

C. L. Bonifield and S. E. Allen, of Cincinnati, have recently suffered painful though not serious automobile accidents.

Dr. Dabney, president of the Cincinnati University, has asked for bonds for a million dollars for new buildings for the university.

The State Board of Health is doing a good work in Cincinnati in licensing maternity hospitals. Two notorious ones have been refused a license.

Henry Asbury Christian was recently elected dean of the Harvard Medical School, to fill the place vacated over a year ago by William R. Richardson.

The Cornell University Medical College has established a psycho-therapy clinic, modeled after the one started two years ago at Johns Hopkins University.

At the Bureau of Public Health and Marine Hospital Service, Washington, D. C., January 11, 1909, at 10 a. m., candidates will be examined for assistant surgeons.

John A. Witherspoon, Nashville, Tenn., was elected president of the Mississippi Valley Medical Association. St. Louis was selected as the place of meeting for 1909.

William T. Shoemaker, Philadelphia,* was awarded the Alvarenga prize of the College of Physicians of Philadelphia for his essay on "Retinitis Pigmentosa."

The Monroe County Medical Society passed resolutions asking the local lay press not to mention the name of the attending physician when giving accounts of operations or illness.

At the twenty-seventh annual meeting of the Association of Surgeons of the Pennsylvania Lines, West, held at Pittsburg recently, Adam M. Beer, of Newcomerstown, was elected president.

J. W. Conklin, of Dayton, read before the Ohio State Library Association at Cincinnati November 5 a paper on medical libraries. Dr. Conklin has been for many years a trustee of the Dayton Library.

The H. K. Cushing Laboratory of Experimental Medicine at the Western Reserve University, Cleveland, is to be dedicated November 30. The address of the occasion will be delivered by William H. Welch, of Johns Hopkins University.

At the twenty-first annual meeting of the American Association of Obstetricians and Gynecologists, held at Baltimore September 23 to 25, William H. Humiston, of Cleveland, was elected president. Fort Wayne, Ind., was selected as the meeting place for 1909.

John R. Erdmann has resigned as clinical professor of surgery at the New York University and Bellevue Hospital Medical School and has

been appointed professor of surgery in the New York Postgraduate School and Hospital. Dr. Erdmann is a Chillicothe boy.

The Episcopal Hospital for Children, of Cincinnati, celebrated on the 19th inst. its twenty-fifth anniversary. This was also the occasion of the graduation of the nurses. The address to the graduates and the presentation of diplomas was made by Dr. N. P. Dandridge.

N. P. Dandridge, chairman of the committee of the Cincinnati Academy of Medicine appointed to secure the fund of \$100,000 to establish a chair of physiology in the University Medical College for a memorial to Joseph Eichberg, announces that \$20,000 has been subscribed.

The State Board of Charities adopted a resolution requesting the trustees of all state institutions to arrange for the physical examination of all patients admitted and to report to the board any unusual accident or punishment of inmates in the state correctional institutions.

Miss Edith B. Gates, of Cincinnati, has brought suit against the Pennsylvania Railroad Company for the killing of her husband, Dr. Edward S. Gates, whose automobile was run into by a Pennsylvania train, resulting in the death of the doctor. The amount sued for is \$10,000.

Burt R. Rickards, of Boston, was recently appointed director of the state bacteriological laboratory. Dr. Rickards is the editor of the American Journal of Hygiene, and until recently was in charge of the Boston (Mass.) Board of Health. He will assume his duties December 1.

The Waldorf-Astoria Hotel, New York, has opened an emergency surgical hospital. While the room is primarily intended for the guests in the hotel, it will be at the disposal of any ambulance surgeon called to the neighborhood who finds a patient needing immediate attention.

Frederic Brush, of Boston, has been appointed superintendent of the New York Postgraduate Medical School and Hospital. Before assuming the position he will devote some time to a study of postgraduate instruction and hospital administration in the various American medical centers.

In the list of the standing and special committees given out by President Burrell since the Chicago session of the Association are the names of the following Ohio physicians: C. A. L. Reed,

Committee on Medical Legislation; George W. Crile, Board of Public Instruction on Medical Subjects; D. R. Silver, Conference Committee on Drug Reform.

A telegram received in Alliance November 9 announced the death in northern Canada of G. W. Root, of that city, while hunting. No information was given in the dispatch save that he was accidentally shot by a companion. During his absence he was to have been married in Font-hill, Ontario, Canada. Eighteen months ago a brother met a similar death.

Horace Whitacre, Cincinnati, has secured the sworn signatures of 287 physicians who have referred cases to him during the past few years, each of whom denies that he at any time divided a fee with Dr. Whitacre. That malice is at the bottom of the charge seems certain. A certain surgical association rejected him for membership, and it is said that division of fees was the reason.—Lancet-Clinic.

The medical directors of the Cincinnati Hospital are weeding out the patients who are able to pay. They feel that the free treatment of patients who are financially able to pay is working an injustice to the medical profession as well as the taxpayers. They do not intend in the future that any one shall receive gratuitous treatment at this hospital whose income exceeds that of the medical directors themselves. A good resolution.

Dan Millikin, of Hamilton, delivered the opening address in the course of public lectures at the University of Cincinnati November 5. His subject was "The Widening Horizon of Medicine." He reviewed briefly the history of medicine from the beginning. He dwelt on the widening field in the prevention of disease, the place doctors should have in the prevention of the marriage of the unfit, the overseeing of the milk supply, the water supply and the schools.

Weir Mitchell will be much obliged by an answer from members of the profession to the following query: Have you seen any case of arrest, temporary or permanent, of undoubted epilepsy, owing to intercurrent disease, such as pneumonia, scarlet fever, measles, diphtheria, whooping cough or tuberculosis? Exact statements in regard to this matter are desired, addressed to S. Weir Mitchell, 1524 Walnut street, Philadelphia, at as early a date as may be convenient.

The Obstetrical Society of Cincinnati met at the residence of W. H. Wenning, in Clifton, Cincinnati, for its November meeting. The paper of the evening was by Stephen C. Cone on the subject of pus tubes. Dr. Cone was a candidate for membership and after the reading of his paper he was elected. After an animated discussion, taken part in by nearly every one there, adjournment was had for refreshments. The next meeting will be held with Dr. Bonifield, in December.

At the recent meeting of the British Medical Association, in a discussion on the teaching of anatomy, Addison pointed out how anatomy peculiarly lent itself to the vicious system of cramming, thus making the knowledge gained less serviceable and lasting as well as of less educational value. He suggests that the muscles be studied in groups, rather than individually, and that in the study of the vascular and nervous systems and the viscera the teacher should call particular attention to their pathologic and clinical relations.

The annual meeting of the Ohio Association of Medical Teachers will be held at the Great Southern Hotel in Columbus, Monday, December 28th.

Afternoon and evening sessions have been arranged for so that the members will be kept from their work only one day.

The following papers have been promised:

"What Should be Taught in Anatomy?"—Professor W. E. Lewis, Miami Medical College.

"A Graded Anatomy Course"—Professor Chas. W. Moots, Toledo Medical College.

"What Should be Taught the Medical Student in Chemistry"—Professor J. U. Lloyd, Eclectic Medical Institute.

"The Medical Flavor in Medical Chemistry"—Professor Park L. Myers, Toledo Medical College.

"Methods in Teaching Internal Medicine"—Professor C. F. Hoover, Medical Department Western Reserve University.

"Pedagogic Methods in Medical Colleges"—Professor W. J. Means, Starling-Ohio Medical College.

"Advances via Pharmacology"—Professor Charles G. Souder, Toledo Medical College.

Papers have also been promised by Professors S. W. Kelley, Cleveland College of Physicians and Surgeons, and C. E. Walton, Pulte Medical College. The titles will be announced later.

The members of the profession who are interested in medical teaching are cordially invited to be present.

MARRIAGES

William C. Zanting to Miss Iva Mae Kauffman, both of Cleveland, October 15.

James W. Van Dusen, captain medical corps, U. S. A., to Miss Besse Evelyn Haines, of Elyria, October 20.

Charles G. Brown to Miss Essie L. Meister, both of Mansfield, October 7.

Clarence A. Ihle, of Cincinnati, and Dollas Anderson Downard, of Cincinnati, November 18.

DEATHS

William C. Hughes, Medical College of Ohio, '70, died at his home in Cleves, aged fifty-nine.

Henry F. Kattenhorn, Medical College of Ohio, '91, died at his home in Cincinnati October 3 from pneumonia, aged thirty-nine.

Charles L. Hane, Starling Medical College, '97, died at his home in Florida, Ohio, October 25, from tetanus, following an injury to the face received by being thrown from his buggy eight days before, aged thirty-nine.

Otto W. Fennel, Medical College of Ohio, '84, died at his home in Cincinnati October 23 from chronic Bright's disease, aged forty-seven.

Charles R. Bradfield, Detroit Medical College, '71, died at his home in Mt. Vernon October 16, aged sixty-two.

Robert W. Purdy (examination Ohio, 1896) died suddenly at his home in Bradyville October 12, aged seventy-two.

A. W. Layburne, the oldest physician of Clark

county, died in Springfield October 8, aged ninety.

Robert S. Campbell, Western Reserve University, '08, died at the home of his parents in Cleveland October 17 from typhoid fever, aged twenty-five.

Arthur Kelty, Western Reserve University, '73, died suddenly from heart disease in Xenia October 9, aged seventy-two.

Dennis McCarthy, Botanico-Medical College, Cincinnati, '50, died at his home in Dayton October 17 from senile debility, aged eighty-seven.

Elijah F. Davis, Eclectic Medical Institute, Cincinnati, '57, died in Cleveland October 18, aged seventy-nine.

J. D. Timmerman, Eclectic Medical Institute, Cincinnati, '70, of Leipsic, died at Columbus Grove November 4, aged sixty-nine.

Joseph Wilson, Western Reserve University, '62, died in Youngstown October 27, from apoplexy, aged seventy-two.

Con W. Gatch, of Milford, died November 5 after a lingering illness. He was born in 1856, graduated in 1892 from the Cincinnati College of Medicine and Surgery, was a member of the American Medical Association, Ohio State Medical Association and member and secretary of the Miami Valley Medical Association. He was repeatedly elected mayor of Milford and was at the time of his death deputy coroner of Clermont county. He was a Mason and a member of the Ohio Society Sons of the Revolution. He leaves a widow and daughter.



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NEXT MEETING, COLUMBUS, MAY 6, 7, 8, 1908.

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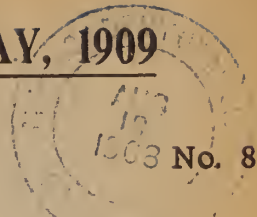
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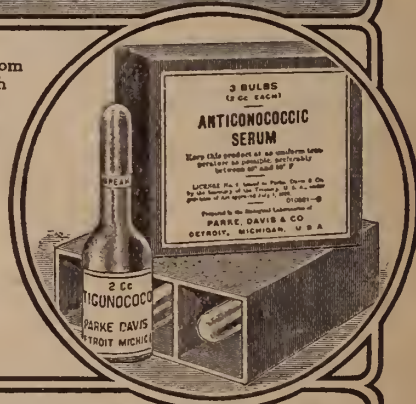
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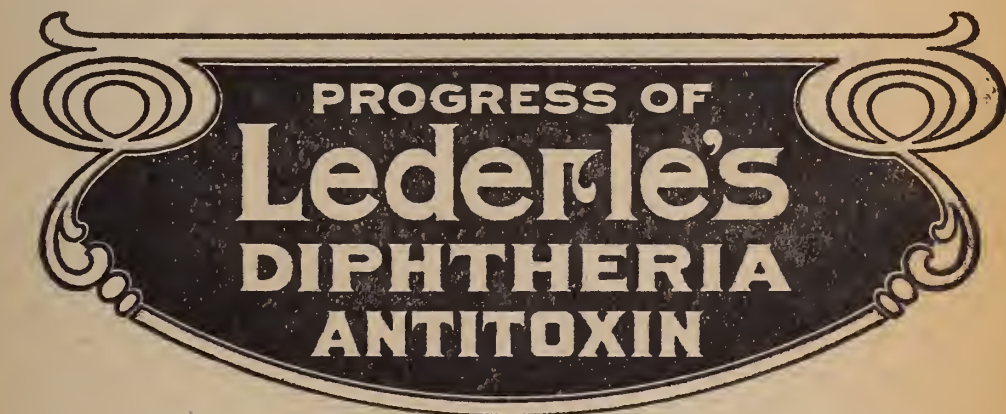
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